



ISOCOM COMPONENTS

“Quality components when you need them”

Isocom Components is a leading manufacturer of high performance infrared optoelectronic devices specialising in optocouplers and optoswitches. Since the business was established **over 30 years ago** we have consistently delivered in excess of our customer's expectations to become one of the most respected brands in the worldwide optoelectronic industry.

- **1982** Formed by ex management and engineering staff of Litronix ,when they were bought by Siemens.
- **1984** saw the opening of a custom-built factory by H.R.H Prince Charles to start manufacturing Isocom own brand products.

Our expert knowledge and flexible manufacturing processes result in the ***shortest production lead times*** in the world for many parts. Our product quality and superior customer service is unrivalled and endorsed by our many long-standing customers.

Isocom Components is your natural alternative to all popular commercial optocoupler industry standard types ***including many no longer supplied by other manufacturers.*** In addition, we carry out special parametric selections to meet customer's specific circuit design requirements.

Our parts are available approved to the leading recognised industry standards and all devices are available in various lead forms and in Tape and Reel packaging if required.

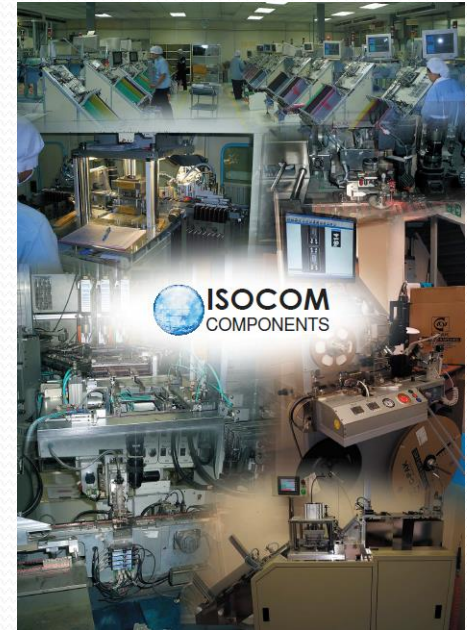
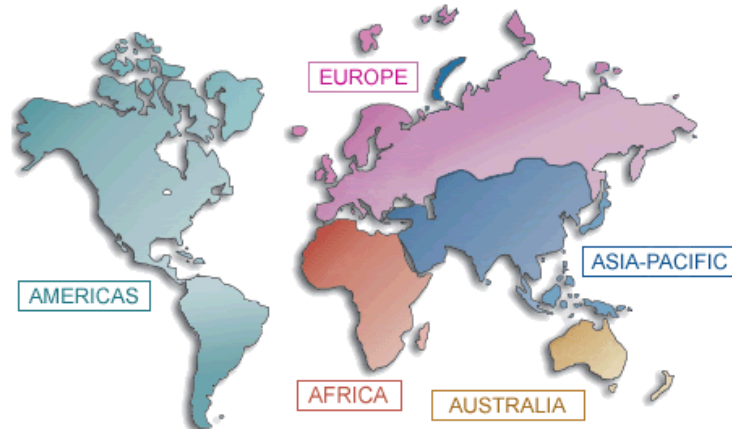
- ✓ **Special Selections**
- ✓ **Short Lead Times**
- ✓ **Unbeatable Quality**
- ✓ **UL, VDE**
- ✓ **RoHS Compliant to EU Directive 2011/65/EU and (EU)2015/863**
- ✓ **Superior Service**
- ✓ **Just-In-Time Delivery**
- ✓ **Technical Support**

Distribution

Isocom are represented by distributors in and around 12 countries in the Asia Pacific region, including China, Malaysia, Taiwan and Thailand. We have distributors in nearly every state in the USA, and most countries in Europe.

Representatives

We also have a network of representatives in North America.



Applications

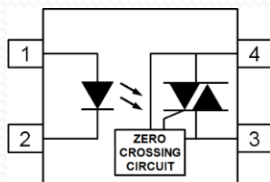


Function	Applications
Isolation of High Voltage	➤ IGBT / MOSFET / IPM Drive in Inverters / Solar Inverters / UPS ➤ Motor Control / VFD ➤ Heater Control / Air Conditioning ➤ SMPS Voltage Regulation
Isolation between Data Transfer	➤ Industrial Control / Numerical Control ➤ PLC / Remote Control ➤ Computer Peripheral Interface ➤ Smart Meters
Switch / Others	➤ Battery Charging / Discharging / Monitoring ➤ Signal / Voltage Detection

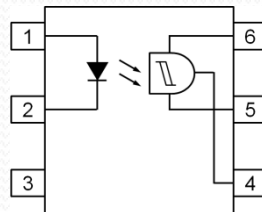
Transistor



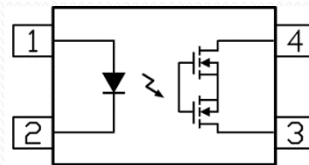
Triac



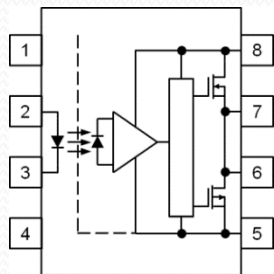
Schmitt Trigger



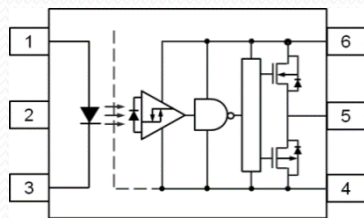
Solid State Relay



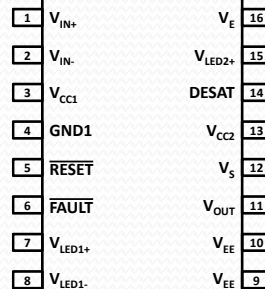
IGBT/MOSFET Gate Drive



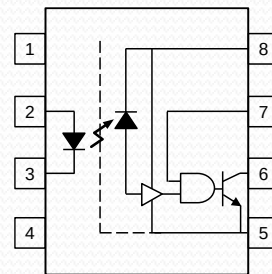
IPM Gate Drive



Smart Gate Drive



High Speed

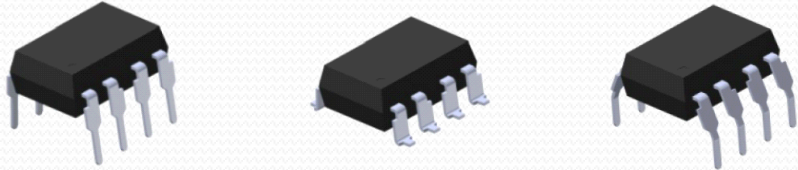
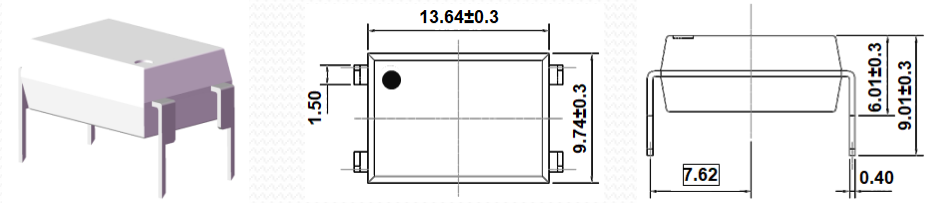


Configurations and Features

Output	Configurations	Features
Phototransistor / Darlington	▪ Single / Dual / Quad Channel ▪ DIP / Mini Flat / Half Pitch / Long Creepage ▪ Optical Switch ▪ Thickness Through Insulation (I/P-O/P) $\geq 3\text{mm}$	➤ DC / AC Input ➤ Base and without Base ➤ Symmetrical ➤ $V_{\text{ISO}} 8200V_{\text{RMS}}$
Photo Triac	▪ DIP ▪ Mini Flat	➤ Non Zero Crossing (3, 5, 10, 15, 30mA Trigger Current) ➤ Zero Crossing (5, 10, 15, 30mA Trigger Current)
Schmitt Trigger	▪ DIP	➤ 1.6mA, 2mA, 5mA, 10mA Trigger Current
PhotoMOS (Solid State Relay)	▪ DIP	➤ 60V/550mA, 250V/180mA, 400V/120mA, 600V/50mA
IGBT / MOSFET Gate Drive	▪ Single Channel ▪ DIP / Wide Body / Mini Flat 5 Pin ▪ Stretched SO6 / Stretched SO6 Wide Lead Pitch	➤ Output Current $\pm 1.0A$, $\pm 2.5A$, $\pm 3.0A$ ➤ Rail to Rail Output Voltage ➤ UVLO Availability
IPM Gate Drive	▪ DIP ▪ Stretched SO6 / Long Creepage Stretched SO6	➤ Open Collector Output, Output Current : -16mA ➤ Totem Pole, Hysteresis, Positive Logic, Output Current $\pm 50\text{mA}$
SMART Gate Drive	▪ SO16	➤ Output Current $\pm 5.0A$ ➤ Integrated Fail-safe IGBT Protection
High Speed	▪ Single / Dual Channel ▪ DIP / Wide Body/ Mini Flat 5 Pin / Half Pitch ▪ Stretched SO6 Wide Lead Pitch	➤ 1Mbps ➤ 10Mbps ➤ Split Darlington ➤ $V_{\text{CC}} 3.3V$ Availability

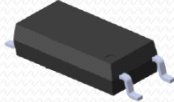
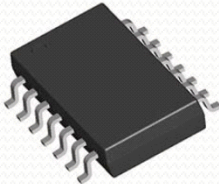
Packages (1)

DIP

Standard	4, 6, 8, 16 Pins	
Wide Body	8 Pins	
$I/P-O/P \geq 3mm$ $V_{ISO} 8200V_{RMS}$	4, 5 Pins	

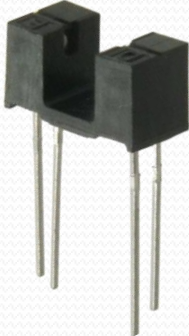
Packages (2)

SOP, SSOP, Stretched SO6

Mini Flat	4, 5 Pins	
Half Pitch	4, 8, 16 Pins	
Stretched SO6 Normal / Wide Lead Separation	6 Pins	
Long Creepage	4 Pins	
SO16	16 Pins	

Packages (3)

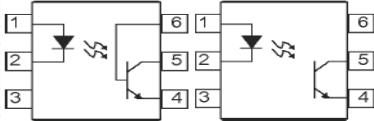
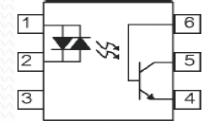
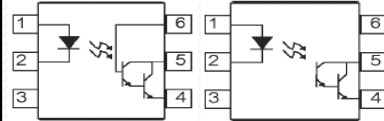
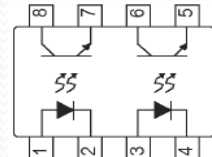
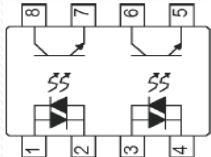
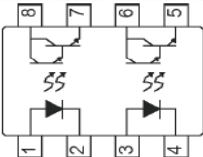
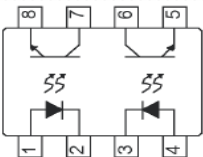
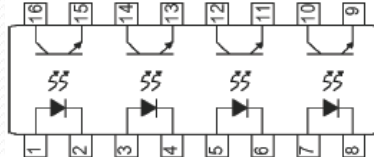
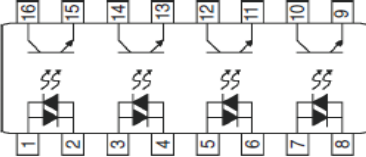
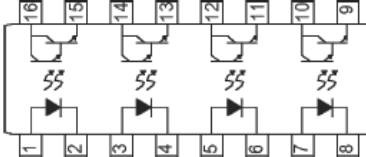
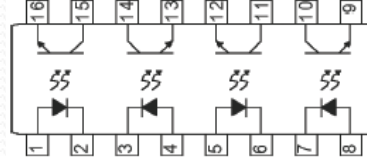
Optical Switches (Optical Interrupter)

Slot Width	3.2mm	
	5.2mm	

Phototransistor / Darlington

Packages : DIP, 10mm Lead Pitch, SMD

Availability – *:Mini Flat , **:Half Pitch , #:Long Creepage , ## : $V_{ISO} 8200V_{RMS}$

	DC Input	AC Input	Darlington	Symmetrical
4 Pin	* ** # ## 	* ** 	* ** 	
6 Pin With Base Non Base				
8 Pin Dual Channel	** 			
16 Pin Quad Channel	** 	** 		

Phototransistor : Low Input Current

Half Pitch : Same CTR at I_F 0.5mA and 5mA

Part Number	Package	Isolation Voltage	T_{OP}	V_{CEO}	CTR $I_F = 0.5mA$ $V_{CE} = 5V$	CTR $I_F = 5mA$ $V_{CE} = 5V$	$V_{CE(sat)}$ $I_F = 8mA$ $I_C = 2.4mA$	t_r $V_{CC} = 10V$ $I_C = 2mA$ $R_L = 100\Omega$ $f = 100Hz$	t_r $V_{CE} = 10V$ $I_C = 2mA$ $R_L = 100\Omega$ $f = 100 Hz$
		Typ (kV_{RMS})	$^{\circ}C$	Max (V)	Min (%)	Min (%)	Max (V)	Max (μs)	Max (μs)
Low Input Current									
IS183	Mini Flat	3.75	-55 to 125	80	50	50	0.3	18	18
IS283	Half Pitch							2 Typ	3 Typ
IS383	Long Creepage	5							

Phototransistor : $V_{ISO} 8200V_{RMS}$

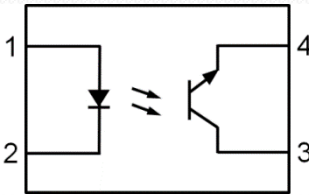
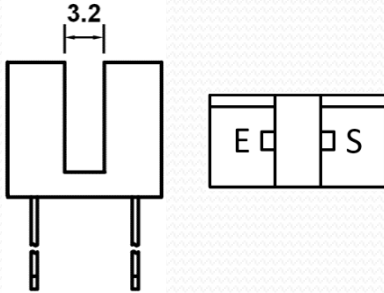
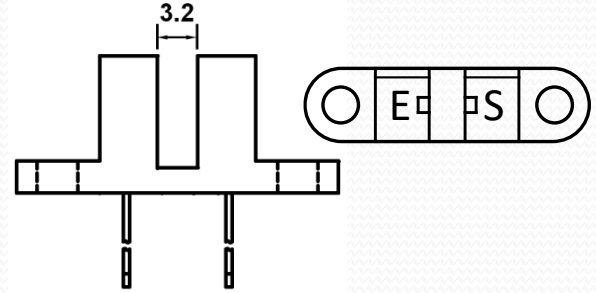
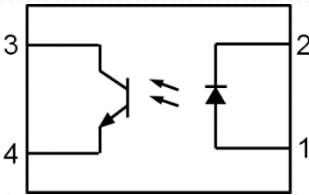
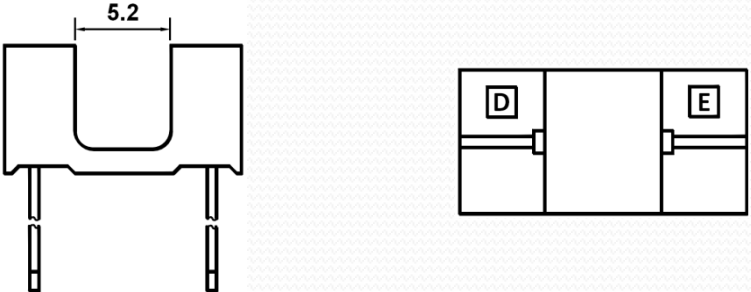


Thickness Through Insulation (I/P-O/P) $\geq 3mm$

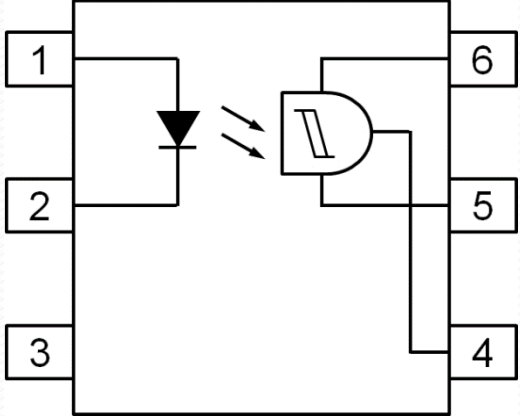
Part Number	Package	Isolation Voltage	T_{OP}	V_{CEO}	CTR $I_F = 5mA$ $V_{CE} = 5V$	$V_{CE(sat)}$ $I_F = 10mA$ $I_C = 1mA$	t_r $V_{CC} = 5V$ $I_C = 5mA$ $R_L = 100\Omega$	t_f $V_{CC} = 5V$ $I_C = 2mA$ $R_L = 100\Omega$
		Typ (kV_{RMS})	$^{\circ}C$	Max (V)		Max (V)	Max (μs)	Max (μs)
High Isolation Voltage $V_{ISO} 8200V_{RMS}$								
CNY65	DIP Pitch 15.24mm	8.2	-55 to 85	80	50 - 300	0.3	18	18
CNY65A					63 - 125			
CNY65B					100 - 200			

Optical Switches

PCB Mount, Screw Mount

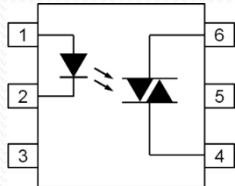
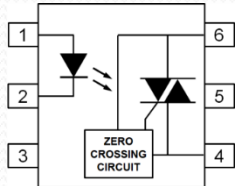
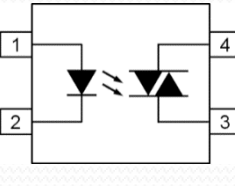
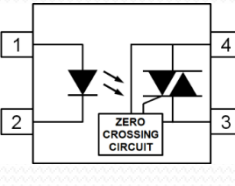
Slot Width 3.2mm	PCB Mount	Part No.	Screw Mount	Part No.
Top View 		H22A1 H22A2 H22A3 ISTS100		H21A1 H21A2 H21A3 ISTS200
Slot Width 5.2mm	PCB Mount			
Top View 				ISTS105A

Schmitt Trigger

Package		Configuration	Part Number
DIP, SMD, 10mm Lead Spacing	6 Pin		H11L1, H11L2, H11L3, H11L4

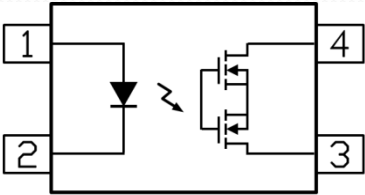
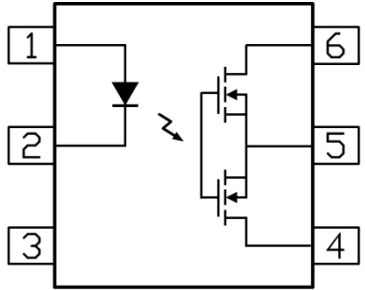
Refer to Catalog for Other available PNs

Opto Triac

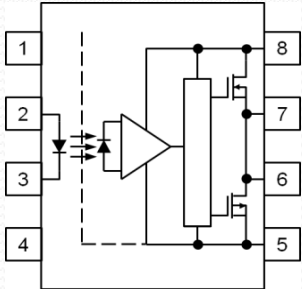
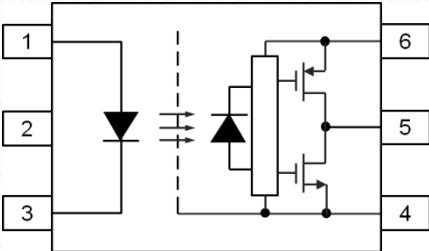
		NZC Non Zero Crossing (Random Phase)		ZC Zero Crossing	
Triac Voltage (V)		250, 400, 600		250, 400, 600, 800	
Trigger Current (mA)		3, 5, 10, 15, 30		5, 10, 15, 30	
DIP, SMD, 10mm Lead Spacing	6 Pin		MOC3009 / 10 / 11 / 12 MOC3020 / 21 / 22 / 23 MOC3051 / MOC3052		MOC3030 / 31 / 32 / 33 MOC3040 / 41 / 42 / 43 MOC3060 / 61 / 62 / 63 MOC3080 / 81 / 82 / 83
			MF3009 / 10 / 11 / 12 MF3020 / 21 / 22 / 23 MF3024 MF3053		MF3030 / 31 / 32 / 33 MF3040 / 41 / 42 / 43 MF3060 / 61 / 62 / 63 MF3080 / 81 / 82 / 83

Refer to Catalog for Other available PNs

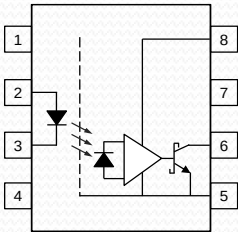
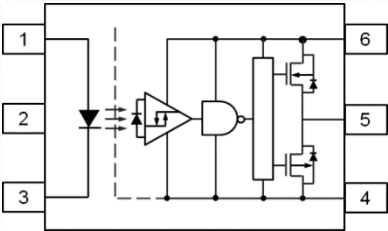
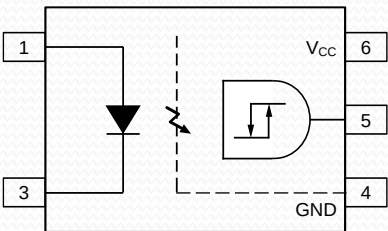
Solid State Relay

Package		Configuration	Part Number
DIP, SMD, 10mm Lead Spacing	4 Pin		ISP06, ISP25, ISP40, ISP60
	6 Pin		IS06, IS25, IS40, IS60

IGBT / MOSFET Gate Drive

Package		Configuration	UVLO	Part Number
DIP, SMD, 10mm Lead Spacing	8 Pin		Available	ICPL3120
			NA	ICPL3150
Stretched SO6	6 Pin		Available	IS314P, IS314W
Stretched SO6 Wide Lead Separation			Available	IS341P, IS341W

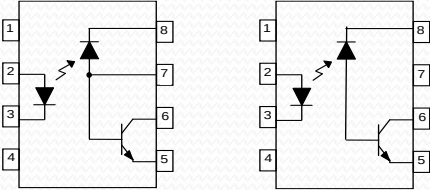
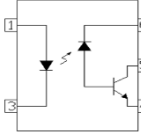
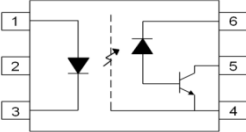
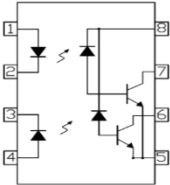
IPM Gate Drive

Package		Configuration	UVLO	Part Number
DIP, SMD, 10mm Lead Spacing	8 Pin		NA	ICPL4506
Stretched SO6	6 Pin		NA	IS480P
Long Creepage SO6	6 Pin		NA	IS5480P, IS5480W

SMART Gate Drive

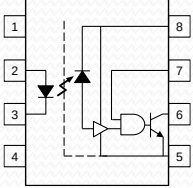
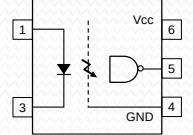
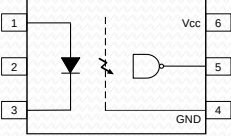
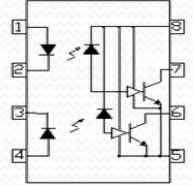
Package	Configuration	Features	Part Number
SO16	The diagram illustrates the internal architecture of the ICPL316J. It consists of an INPUT IC, a DRIVER, and an OUTPUT IC. The INPUT IC receives signals from V_IN+ and V_IN-. The DRIVER stage includes a UVLO (Under Voltage Lock Out) protection. The OUTPUT IC drives the gate of an IGBT, providing V_OUT and DESAT (Desaturation) feedback. The circuit also includes a FAULT detection mechanism and a SHIELD for the LED2+ input.	• Integrated Fail-safe IGBT Protection - DESAT (V_{CE}) Detection - UVLO • Fault Status Feedback	ICPL316J

High Speed 1Mbps

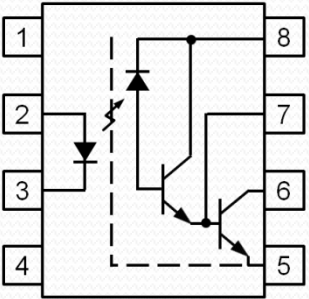
Output	Package		Configuration	V _B (Photodiode Bias)	
				Accessible	No Connection
Single Channel	DIP	8 Pin		6N135, 6N136	ICPL4502, ICPL4503
	Wide Body			ICPLW135, ICPLW136	ICPLW4503
	Half Pitch			ICPL0500, ICPL0501	ICPL0452, ICPL0453
	Mini Flat	5 Pin			ICPLM452, ICPLM453
	Stretched SO6 Wide Lead Separation	6 Pin			ICPLW50L (V _{CC} Minimum 2.7V)
Dual Channel	DIP	8 Pin			ICPL2530, ICPL2531
	Half Pitch				ICPL0530, ICPL0531

High Speed 10Mbps



Output	Package		Configuration	V_E (Enable)	
				Available	NA
Single Channel	DIP	8 Pin		6N137, ICPL2601, ICPL2611	
	Wide Body			ICPLW137, ICPLW2601, ICPLW2611	
	Half Pitch			ICPL0600, ICPL0601, ICPL0611	
	Mini Flat	5 Pin			ICPLM600, ICPLM601
					ICPLM611 (V_{CC} 3.3V / 5V)
	Stretched SO6 Wide Lead Separation	6 Pin			ICPLW60L (V_{CC} 3.3V / 5V)
Dual Channel	DIP	8 Pin			ICPL2630, ICPL2631
	Half Pitch				ICPL0630, ICPL0631

High Speed Darlington

Package		Configuration	V_B (Photodiode Bias)	Part Number
DIP, SMD, 10mm Lead Spacing	8 Pin		Accessible	6N138, 6N139

Common Part Numbers



Transistor Output - Single/Dual /Quad Channel

DC Input : TLP521, SFH615A, SFH618A, ISP817

With Base : 4N25, CNY17, H11A1, H11AA1, 4N33, H11G1

Darlington Output : PS2502, IS627, ISP815

AC Input : PS2505, SFH620A, SFH628A, ISP814

Non-Base : CNY17F-1, MOC8101, MOC8020

VISO 8200V_{RMS} I/P-O/P ≥ 3mm : CNY65, CNY65A, CNY65B

Mini Flat

DC Input : IS181, IS183, IS357, IS2701-1

Darlington Output : IS355, IS2702-1, IS127, IS452

AC Input : IS180, IS126, IS2705-1, IS354

Half Pitch

DC Input : IS281, ISP281, IS283, IS2801, IS281-4, IS3H7

Darlington Output : IS2802-1

AC Input : IS280, IS2805, IS2805-4, IS3H4

Long Creepage

DC Input : ISLT1001, ISLT1002, ISLT1003, ISLT1004, ISLT1007, ISLT1008, ISLT1009, IS383

Schmitt Trigger

H11L1, H11L2, H11L3, H11L4, IS900

Triac - DIP / Mini Flat

NZC : MOC3010, MOC3020, MOC3051 / MF3009, MF3010, MF3020, MF3053

ZC : MOC3030, MOC3040, MOC3060, MOC3080 / MF3030, MF3040, MF3060, MF3080

IGBT/MOSFET/IPM/SMART Gate Drive

ICPL3120, ICPL3150, IS314P/IS314W, IS341P/IS341W / IS480P, IS5480P, IS5480W, ICPL4506 / ICPL316J

High Speed Single/Dual Channel - DIP / Wide Body / Half pitch / Stretched SO6

1Mbps : 6N135, ICPLW136, ICPL4502, ICPL0500, ICPL0452, ICPL2530, ICPL0530, ICPLM453, ICPLW50L

10Mbps : 6N137, ICPLW137, ICPL2601, ICPL0600, ICPL2630, ICPL0630, ICPLM611, ICPLW60L

Split Darlington : 6N138, 6N139

Solid State Relay - 1 Form A

4 Pin : ISP06, ISP25, ISP40, ISP60

6 Pin : IS06, IS25, IS40, IS60

Optical Switch

Slot Width 3.2mm : H21A1, H21A2, H21A3, H22A1, H22A2, H22A3, ISTS100, ISTS200

Slot Width 5.2mm : ISTS105A

Safety Approvals



- UL Cert No. E91231 – UL1577
- VDE Cert No. 40028086 – 60747-5-5
- VDE Cert No. 40044376 – 60747-5-5

Note : Original PN already implies UL approval,

To include VDE approval,

- add “**X**” after the PN,
- add “**V**” for the following PNs (VDE 40044376),
6N135V, 6N136V, 6N137V, 6N138V, 6N139V and H11L1V.

RoHS Compliant



EU RoHS Directive 2011/65/EU

EU 2015/863 Amendment to Annex II of Directive 2011/65/EU

Substance Name	Maximum Concentration values (ppm) by weight in homogeneous materials
Cadmium (Cd) and Cadmium compounds	100
Lead (Pb) and Lead compounds	1000
Mercury (Hg) and Mercury compounds	1000
Chromium VI (Cr 6+) compounds	1000
Polybrominated Biphenyls (PBB)	1000
Polybrominated Diphenyl Ethers (PBDE)	1000
Bis(2-ethylhexyl) Phthalate (DEHP)	1000
Butyl Benzyl Phthalate (BBP)	1000
Dibutyl Phthalate (DBP)	1000
Diisobutyl Phthalate (DIBP)	1000



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THANKS