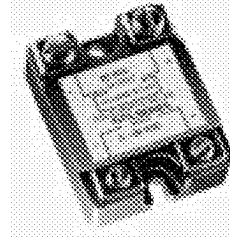


PART NUMBERS

Package & Chip Type	Max Blocking Voltage (piv)/ Line Rating	Input Type (Note 2)	Output Current Amps	Options
IGTD-IGBT	1200480	R~L or R~H	25	See Table
		-DC Input, Random Turn-On	50	
	600240	A~L or A~H	75	Below and Page 58
		-AC Input Random Turn-On	100	

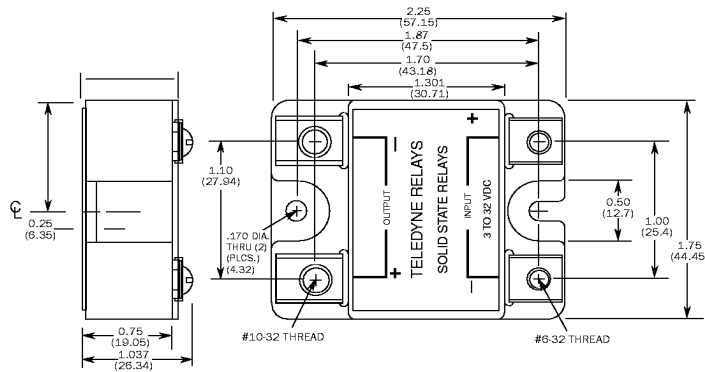


Options (Add Suffix to Part Number) - See Page 58 for full description

- 006 Faston Terminals
- 007 -65 °C Operation
- 010 #8-32 Load Terminal Hardware
- 012 EZ Mount™
- 014 Plastic Cover
- 016 MOV
- 026 Non-Floating Output Terminals

Part Number Example: IGTD1200480R25-L-012

MECHANICAL SPECIFICATION



FEATURES/BENEFITS

- Industry Standard Package
- High temperature plastic housing for exceptional mechanical ruggedness.
- IGBT output.
- Choice of AC or DC input versions.
- Constant Current Input minimizes source current requirement.
- Exposed ceramic baseplate for reduced thermal resistance and best thermal performance.
- Constructed using Teledyne's unique Powertherm™ or Fused Copper™ (for higher current models) processes. These processes yield superior thermal impedance and power cycling capabilities through reduced thermal interconnections, allowing for cooler, more reliable operation.
- The logic drive circuitry section uses the latest in reliable surface mount technology.
- Certifications:
 - UL and ULC Recognized File #E128555

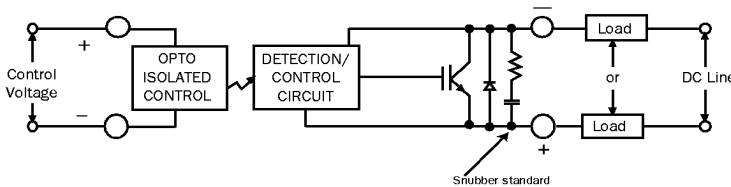
TYPICAL APPLICATIONS

- Electromechanical line relay replacement.
- Industrial and Process Controls.
- Programmable Controller interface.
- Robotics motor position and speed controls.

GENERAL DESCRIPTION

The IGTD series DC Solid State Relays are designed to control high power loads in the industry standard package. Optical isolation ensures complete protection of control elements from load transients. Teledyne's advanced design featuring the Powertherm™ or Fused Copper™ processes offers users superior thermal management resulting in superior performance, quality and reliability.

BLOCK DIAGRAM



ELECTRICAL SPECIFICATIONS

INPUT (CONTROL) SPECIFICATIONS

Parameter	Load Voltage/		Units
	Input Code	Min Max	
Control Voltage Range (Note 2)	600240R~L	3.5 15	Vdc
	1200480R~L	3.5 15	
	600240R~H	15 32	
	1200480R~H	15 32	Vac
	600240A~L	90 140	
	1200480A~L	90 140	
Input Current	R~L (@5Vdc)	30	mA
	R~H (@15Vdc)	30	
	A~L(@140Vac)	30	
	A~H(@280Vac)	30	
Must Turn-Off Voltage	R	2	Vdc
	A	10	Vac
Reverse Voltage Protection	R	-32	Vdc
	A	N/A	
Turn-Off Current	R	1	mA(DC)
	A	1	mA(AC)

OUTPUT (LOAD) SPECIFICATIONS (Contd)

Parameter	Output Current	Min	Max	Units
Output Current Rating (Load Current @85°C)	25		25	A
	50		50	
	75		75	
	100		100	
Pulsed Current Rating	25		190	A
	50		240	
	75		480	
	100		480	
Thermal Resistance Junction to Case (J _c)	25		0.5	°C/W
	50		0.33	
	75		0.2	
Power Dissipation (T _c = 85°C)	25		110	W
	50		175	
	75		500	
	100		500	

OUTPUT (LOAD) SPECIFICATION

Parameter	Voltage Code	Min	Max	Units
Load Voltage Rating	600240	24	400	Vdc
	1200480	48	800	
Frequency Range			75	Hz
Over Voltage Range	600240		600	VPeak
	1200480		1200	
On-State Voltage Drop @ Max Rated Current			2.5	V
Turn-On Time			4.8	ms
Turn-Off Time			0.16	ms
Leakage Current (Off-State) @25°C			1	mA
dV/dt (Typical)			500	V/μs
Isolation (All Terminals To Heatsink) = VRMS For 1 Min With Unit Mounted Properly			2500	V
Operating Temperature		-40	125	°C
Power Factor Range		0.5	1.0	

NOTES:

- Where overvoltage transient spikes are present, suppression may be required. A suppressor and/or a snubber circuit across the AC terminals of the module will provide additional transient immunity.
- Indicate High or Low Control Voltage Range by adding -L or -H to part number before options. See part number example on previous page.

