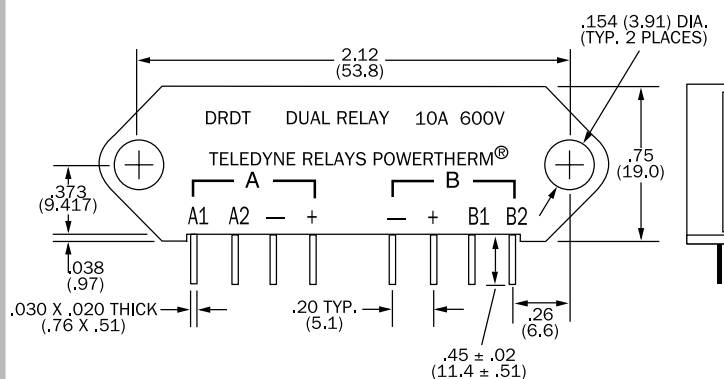


## PART NUMBERS

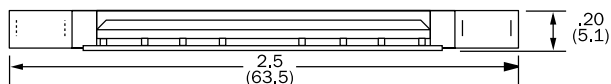
Package & Chip Type	Max Blocking Voltage (piv)/ Line Rating	Input Type	Output Current Amps
DRDT-Triac	600240	D-DC Input Zero Cross Switching	10

Part Number Example: **DRDT600240D10**

## MECHANICAL SPECIFICATION

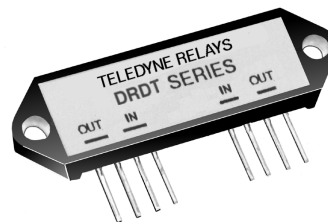
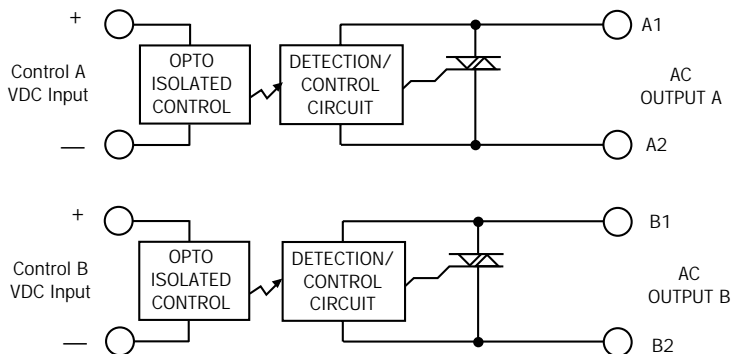


TERMINALS ARE TINNED WITH SN63 SOLDER FOR PCB APPLICATIONS



See page 42 for mounting information.

## BLOCK DIAGRAM



## FEATURES/BENEFITS

- Two independently controlled Solid State Relays in a single package.
- Convenient SIP package for PC mount.
- Triac outputs for economy.
- Zero Cross Turn-On to minimize inrush.
- Constant Current Input minimizes source current requirement
- Exposed ceramic baseplate for reduced thermal resistance and best thermal performance.
- Constructed using Teledyne's unique Powertherm™ process. This process yields 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
  - CE # EN60947-1

## TYPICAL APPLICATIONS

- On/Off control of high power AC equipment.
- Interfacing of microprocessor controls to AC loads - lights, motors, heaters, valves, solenoids etc.
- Electromechanical line relay replacement.
- Industrial and Process Controls.
- Uninterruptable Power Supplies.
- Light dimmers.
- Transformer tap switch.

## GENERAL DESCRIPTION

The DRDT series AC Solid State Relays are designed to provide independent control of medium amounts of power in two separate circuits. Optical isolation ensures complete protection of each relay circuit's control elements from load transients in each load circuit. Teledyne's advanced design featuring the Powertherm™ process offers users superior thermal management resulting in excellent performance, quality and reliability.

**ELECTRICAL SPECIFICATIONS**
**INPUT (CONTROL) SPECIFICATIONS**

Parameter	Min	Max	Units
Control Voltage Range	3	32	Vdc
Input Current (@5Vdc)		15	mA
Must Turn-Off Voltage	1		Vdc
Reverse Voltage Protection		-32	Vdc
Turn-Off Current		0.25	mA(DC)

**OUTPUT (LOAD) SPECIFICATION**

Parameter	Min	Max	Units
Load Voltage Rating	24	280	Vac
Frequency Range (Note 2)	47	70	Hz
Over Voltage Range		600	VPeak
On-State Voltage Drop @ Max Rated Current	1.5		V
Turn-On Time		8.3	ms
Turn-Off Time		8.3	ms
Leakage Current (Off-State) @ Rated Voltage, 60hz		0.5	mA
dV/dt (Typical)		500	V/μs
Dielectric Strength (60 hz)	2500		V
Insulation Resistance (500Vdc)	10 <sup>9</sup>		ý
Operating Ambient Temperature	-40	100	°C
Storage Ambient Temperature	-55	125	°C
Power Factor Range	0.5	1.0	
Weight (Typical)	0.45 oz (12.8g)		

**OUTPUT (LOAD) SPECIFICATIONS (Contd)**

Parameter	Output Current	Min	Max	Units
Output Current Rating Per Output (Base Temp @85 °C)	10	0.05	10	A
Surge Current Rating (Non-Repetitive 16.7 mS)	10		100	A
Thermal Resistance Junction to Case (J <sub>C</sub> )	10	Single Switch on	1.25	°C/W
		Dual Switch on	0.62	

**NOTES:**

- 1.) 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.
- 2.) For 400 Hz operation, contact factory.
- 3.) All parameters at 25°C unless otherwise specified