

Description

DO-15 Series are designed to protect baseband equipment such as modems, line cards, CPE and DSL from damaging overvoltage transients.

The series provides a cost-effective through-hole solution that enables equipment to comply with global regulatory standards.

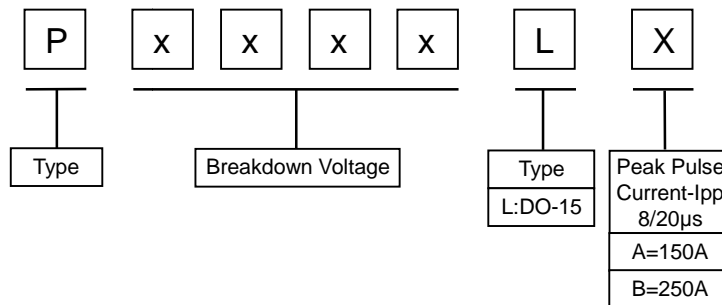


Features

Compared to surge suppression using other technologies, P Series devices offer absolute surge protection regardless of the surge current available and the rate of applied voltage (dv/dt). P Series devices:

- I Cannot be damaged by voltage
- I Eliminate hysteresis and heat dissipation typically found with clamping devices
- I Eliminate voltage overshoot caused by fast-rising transients
- I Are non-degenerative
- I Will not fatigue
- I Have low capacitance, making them ideal for high-speed transmission equipment

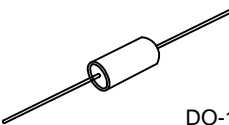
Part Number Code



Surge Ratings

Series	Peak Pulse Current-Ipp(A)	
	8/20µs	10/1000µs
A	150	45
B	250	80

Thermal Considerations

Package	Symbol	Parameter	Value	Unit
 DO-15	TJ	Operating Junction Temperature	-40 to +150	°C
	TS	Storage Temperature Range	-40 to +150	°C
	RθJA	Junction to Ambient on printed circuit	90	°C/W



Electrical Characteristics

Type Number	V_{DRM}	V_S	V_T	I_{DRM}	I_S	I_T	I_H	C_J
	V	V	V	μA	mA	A	mA	pF
P0080LA	6	25	4	5	800	2.2	50	45
P0080LB	6	25	4	5	800	2.2	50	85
P0300LA	25	40	4	5	800	2.2	50	45
P0300LB	25	40	4	5	800	2.2	50	85
P0640LA	58	77	4	5	800	2.2	150	35
P0640LB	58	77	4	5	800	2.2	150	60
P0720LA	65	88	4	5	800	2.2	150	50
P0720LB	65	88	4	5	800	2.2	150	60
P0900LA	75	98	4	5	800	2.2	150	40
P0900LB	75	98	4	5	800	2.2	150	55
P1100LA	90	130	4	5	800	2.2	150	35
P1100LB	90	130	4	5	800	2.2	150	55
P1300LA	120	160	4	5	800	2.2	150	35
P1300LB	120	160	4	5	800	2.2	150	55
P1500LA	140	180	4	5	800	2.2	150	40
P1500LB	140	180	4	5	800	2.2	150	60
P1800LA	170	220	4	5	800	2.2	150	40
P1800LB	170	220	4	5	800	2.2	150	60
P2000LA	180	220	4	5	800	2.2	150	40
P2000LB	180	220	4	5	800	2.2	150	60
P2300LA	190	260	4	5	800	2.2	150	45
P2300LB	190	260	4	5	800	2.2	150	55
P2600LA	220	300	4	5	800	2.2	150	35
P2600LB	220	300	4	5	800	2.2	150	50
P3100LA	275	350	4	5	800	2.2	150	35
P3100LB	275	350	4	5	800	2.2	150	45
P3500LA	320	400	4	5	800	2.2	150	30
P3500LB	320	400	4	5	800	2.2	150	40

Notes:

V_{DRM} : Peak Off-state Voltage – maximum voltage that can be applied while maintaining off state.

V_S : Switching Voltage – maximum voltage prior to switching to on state

V_T : On-state Voltage – maximum voltage measured at rated on-state current

I_{DRM} : Leakage Current – maximum peak off-state current measured at V_{DRM}

I_S : Switching Current – maximum current required to switch to on state

I_T : On-state Current – maximum rated continuous on-state current.

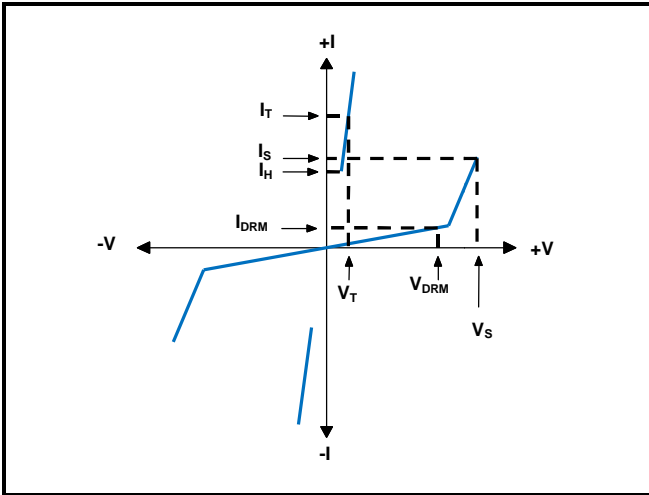
I_H : Holding Current – minimum current required to maintain on state.

C_J : Off-state Capacitance – typical capacitance measured in off state.

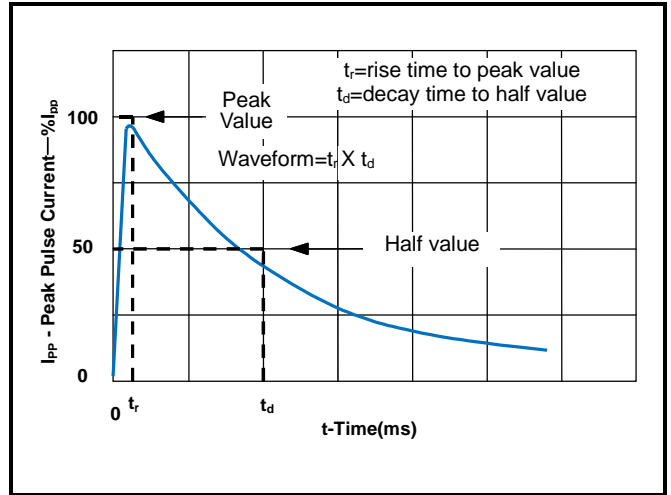


Characteristics Curves

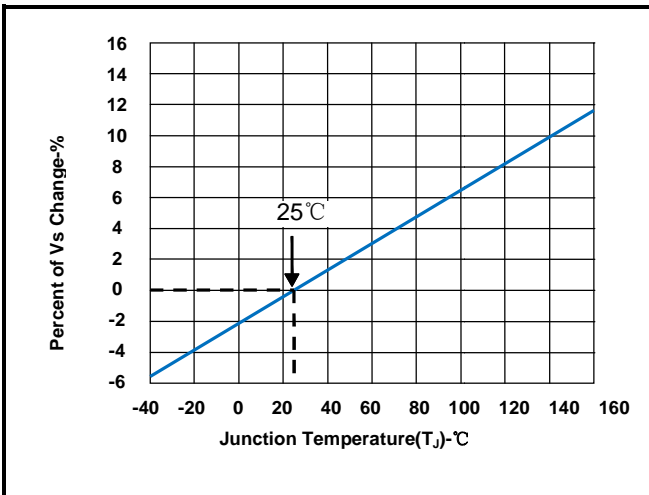
V-1 Characteristics



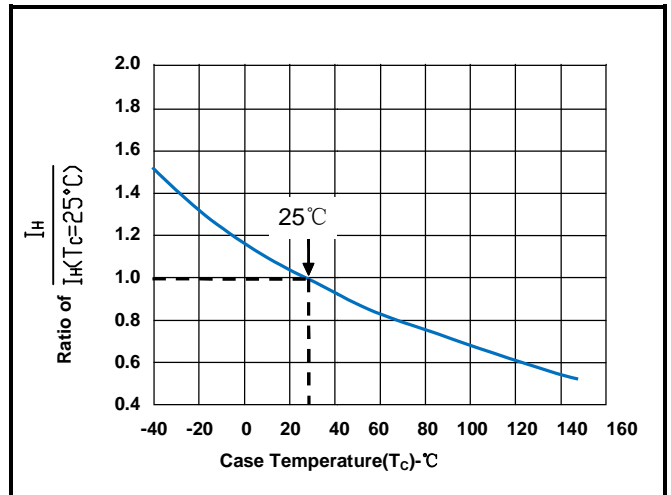
$t_r \times t_d$ Pulse Waveform



Normalized V_S Change vs. Junction Temperature

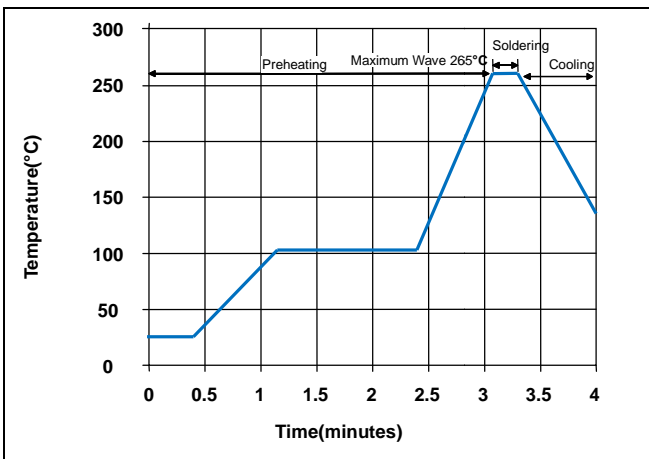


Normalized DC Holding Current vs. Case Temperature



Soldering Recommendation

Wave Lead Free Soldering Recommendation



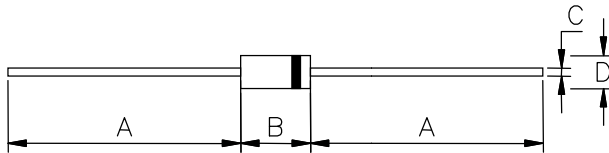
Item	Conditions
Peak Temperature	265°C
Dipping Time	10 seconds (max.)
Soldering	1 time



Recommendation Reworking Conditions with Soldering Iron

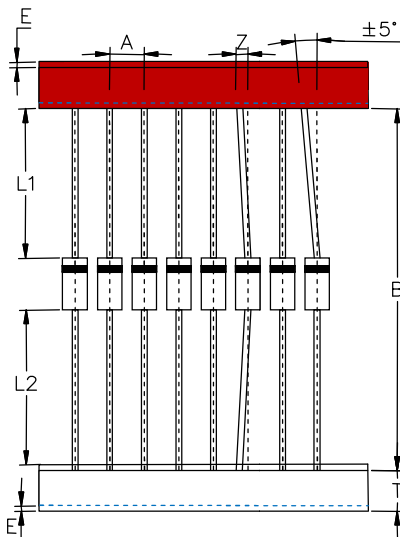
Item	Conditions
Temperature of Soldering Iron-tip	360°C (max.)
Soldering Time	3 seconds (max.)
Distance from Varistor	2mm (min.)

Dimensions

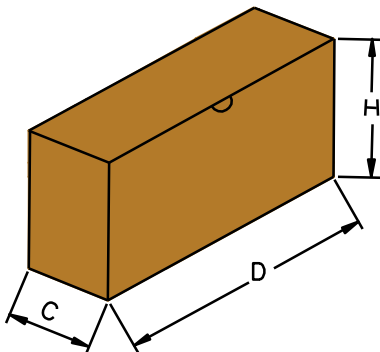


DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	25.40	-	1.000	-
B	5.80	7.60	0.230	0.300
ΦC	0.70	0.90	0.026	0.034
ΦD	2.60	3.60	0.102	0.142

Taping and Reel Specifications



Symbol	Millimeters	Inches
A	5.08±0.5	0.2±0.019
B	53.0±1.0	2.087±0.039
Z	1.2Max	0.047 Max
T	6.0±0.4	0.236±0.015
E	0.8Max	0.031 Max
L1-L2	1.0Max	0.039 Max



Symbol	Millimeters	Inches
D	250.0±5.0	9.843±0.197
C	75.0±5.0	2.953±0.197
H	114.0±5.0	4.488±0.197
Quantity	2000PCS / inner box	

