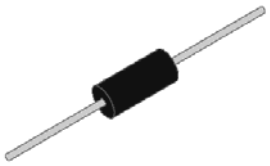
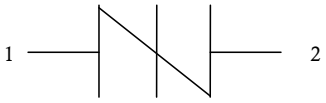
DESCRIPTION:

PxxxxLB series are a type of semiconduct component. They are designed to protect baseband equipment from damaging overvoltage transients.



DO-15



Symbol

FEATURES:

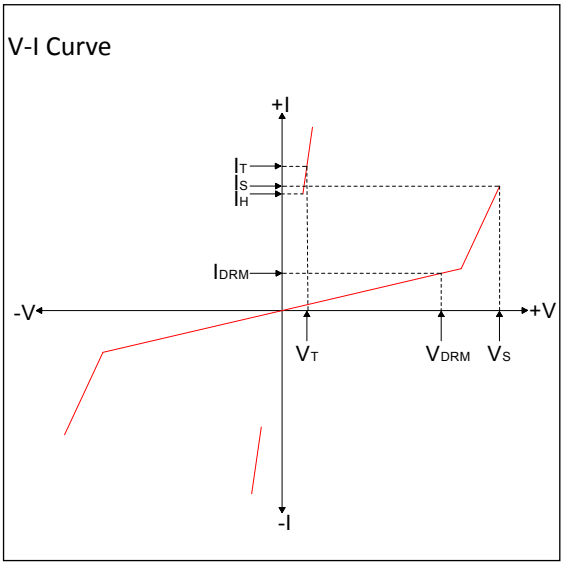
- ✧ Low profile package.
- ✧ Low on-state voltage.
- ✧ Excellent capability of absorbing transient surge.
- ✧ Quick response to surge voltage (ns Level).
- ✧ Eliminates overvoltage caused by fast rising transients.
- ✧ Moisture sensitivity level: Level 1.
- ✧ Non degenerative.

ABSOLUTE MAXIMUM RATINGS(T_A=25ºC, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T_{STG}	-60 to +150	℃
Operating junction temperature range	T_J	-40 to +125	℃
Repetitive peak pulse current	I_{PP}	80	A

ELECTRICAL CHARACTERISTICS(T_A=25℃)

Symbol	Parameter
V_{DRM}	Peak off-state voltage
I_{DRM}	Off-state current
V_S	Switching voltage
I_S	Switching current
V_T	On-state voltage
I_T	On-state current
I_H	Holding current
C_O	Off-state capacitance



ELECTRICAL CHARACTERISTICS(T_A=25℃, continued)

Part Number	I_{DRM}@V_{DRM}		V_S①@I_S		V_T@ I_T		I_H	C_O②
	μA	V	V	mA	V	A	mA	pF
	max		max	max	max	max	min	max
P0080LB	1	6	15	800	4	2.2	50	130
P0220LB	1	15	30	800	4	2.2	50	120
P0300LB	1	25	40	800	4	2.2	50	120
P0640LB	1	58	77	800	4	2.2	120	80
P0720LB	1	66	87	800	4	2.2	120	75
P0900LB	1	75	98	800	4	2.2	120	70
P1100LB	1	90	130	800	4	2.2	120	70
P1300LB	1	120	160	800	4	2.2	120	60
P1500LB	1	140	180	800	4	2.2	120	55
P1800LB	1	170	220	800	4	2.2	120	50
P2300LB	1	190	260	800	4	2.2	120	50
P2600LB	1	220	300	800	4	2.2	120	45
P3100LB	1	275	350	800	4	2.2	120	45
P3500LB	1	320	400	800	4	2.2	150	40

① Vs is measured at 100KV/s

② Off-state capacitance is measured in V_{DC}=2V,V_{RMS}=1V, f=1MHz

SURGE RATINGS

Series	I_{PP}(A) min			
	2×10μs	8×20μs	10×360μs	10×1000μs
B	250	250	125	80

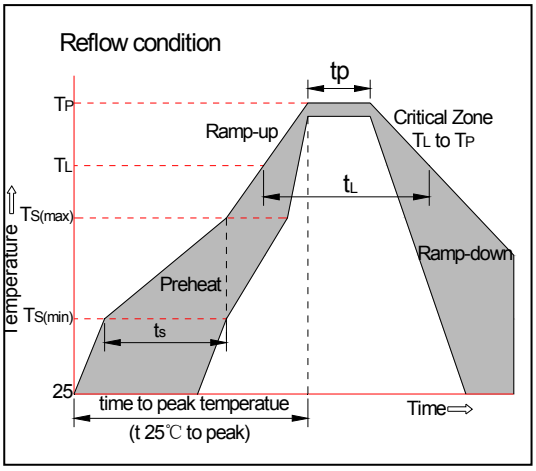
ORDERING INFORMATION

P 008 0 L B

- P: Series code — P: SIDACtor
- 008: Median voltage
- 0: Bi-direction; 1: Uni-direction
- L: Package type: DO-15
- B: Surge ratings:4KV(10/700μs)

SOLDERING PARAMETERS

Reflow Condition		Pb-Free assembly (see figure at right)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquidus Temp (T_L)to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquidus)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃of actual Peak Temp (t_p)		30secs.Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃



Flow/Wave Soldering(Solder Dipping)	
Peak Temperature	260℃
Dipping Time	5 seconds
Soldering	1 time

FIG.1: Normalized Vs change vs. junction temperature

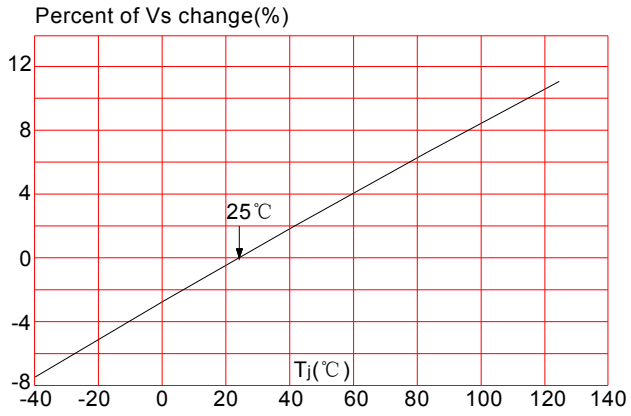


FIG.2: Normalized DC holding current vs. case temperature

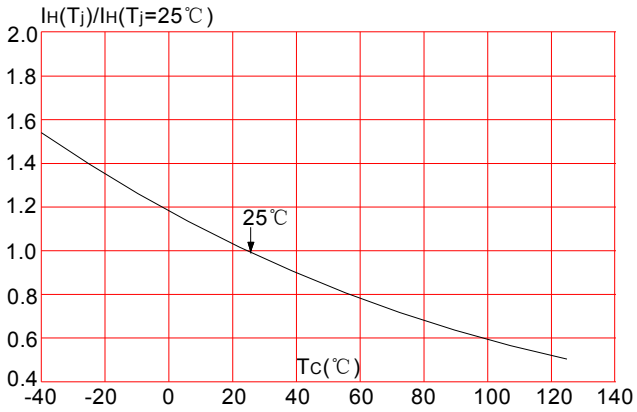
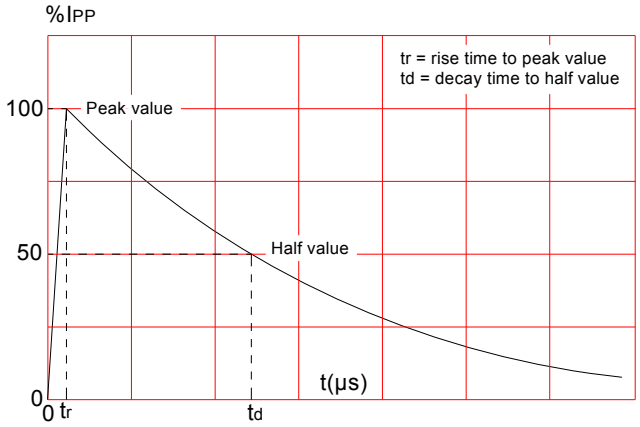
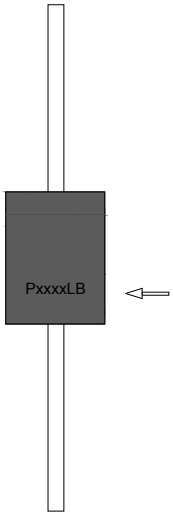


FIG.3: tr × td pulse waveform



MARKING & ORDERING INFORMATION

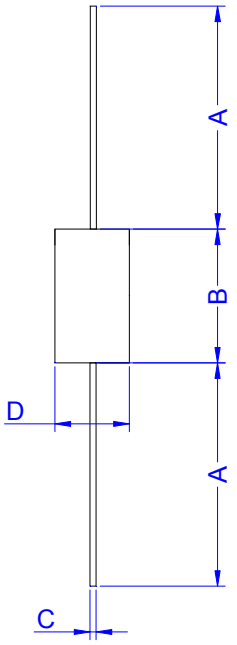


⇐ Product Type

P	xxx	x	L	B
(1)	(2)	(3)	(4)	(5)

(1)Thyristor surge suppressors
(2)V_S voltage code
(3)Bi-directional
(4)Package:DO-15
(5)Surge ratings:4KV(10/700μs)

PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	1.000	-	25.40	-
B	0.228	0.300	5.80	7.62
C	0.022	0.035	0.56	0.89
D	0.102	0.142	2.60	3.60

DO-15

Part Number	UNIT WEIGHT (g/PCS) typ.	Case Type	Quantity	Packing Option
PxxxxLB	0.42	DO-15/DO-204AC	2000	Box