

DESCRIPTION:

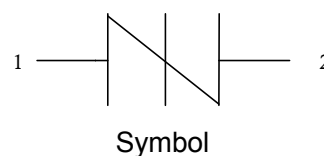
PxxxxD series thyristors are a type of semi-conduct component. They are designed to protect baseband equipment from damaging overvoltage transients. such as modems, telephones, line cards, answering machines, FAX machines, T1/E1, xDSL and more.



SMB

FEATURES:

- ✧ 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

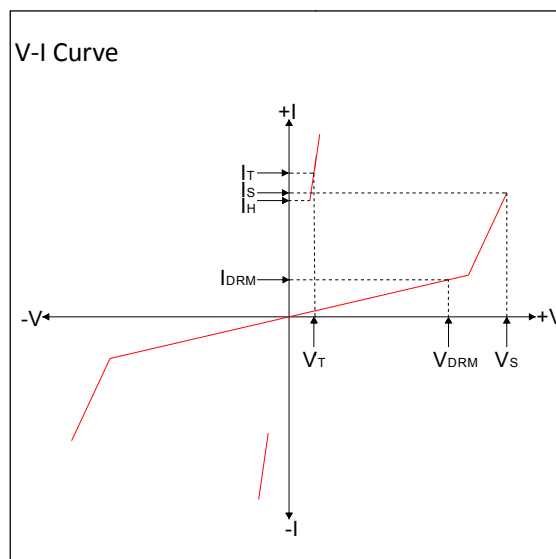


ABSOLUTE MAXIMUM RATINGS (T_A=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T _{stg}	-60 to +150	°C
Operating junction temperature range	T _j	-40 to +125	°C
Repetitive peak pulse current	I _{PP}	200	A

ELECTRICAL CHARACTERISTICS (T_A=25°C)

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 _S ^① @I _S		V _T @ I _T		I _H	C _O ^②	Marking
	μA	V	V	mA	V	A	mA	pF	
	max		max	max	max	max	min	max	
P0080SD	5	6	25	800	4	2.2	50	150	P-8D
P0640SD	5	58	77	800	4	2.2	50	150	P06D
P0720SD	5	65	87	800	4	2.2	50	150	P07D
P0900SD	5	75	98	800	4	2.2	50	140	P09D
P1100SD	5	90	130	800	4	2.2	50	110	P11D
P1300SD	5	120	160	800	4	2.2	50	100	P13D
P1500SD	5	140	180	800	4	2.2	50	90	P15D
P1800SD	5	170	220	800	4	2.2	50	90	P18D
P2300SD	5	190	260	800	4	2.2	50	80	P23D
P2600SD	5	220	300	800	4	2.2	50	70	P26D
P3100SD	5	275	350	800	4	2.2	50	60	P31D
P3500SD	5	320	400	800	4	2.2	50	60	P35D
P3800SD	5	340	450	800	4	2.2	50	60	P38D

① V_S 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			
	2×10us	8×20us	10×360us	10×1000us
D	1000	800	---	200

ORDERING INFORMATION

P	008	0	S	D
Series code P: SIDACTor	Median voltage	0: Bi-direction 1: Uni-direction	Package type	Surge ratings:8KV(10/700μs)

SOLDERING PARAMETERS

Reflow Condition		Pb-Free assembly (see FIG.2)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (t_s)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L) (Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

FIG.1: $t_r \times t_d$ pulse waveform

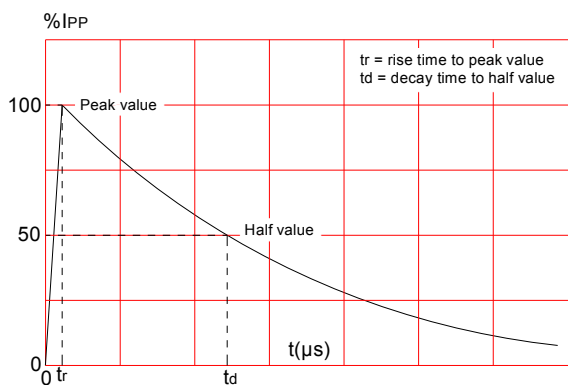


FIG.2: Reflow condition

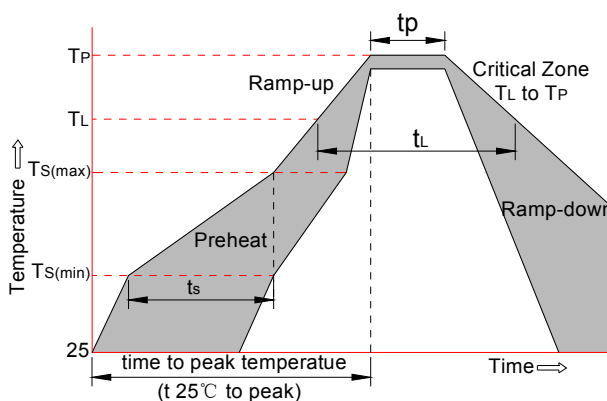


FIG.3: Normalized Vs change vs. junction temperature

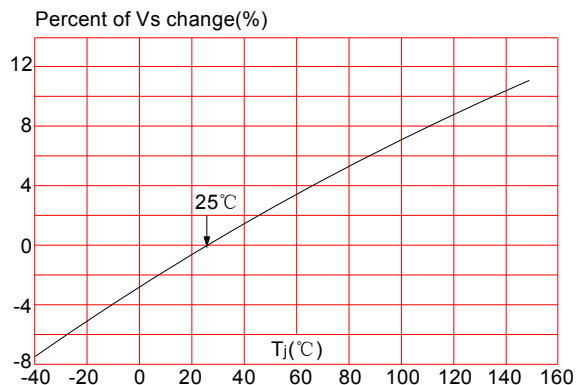
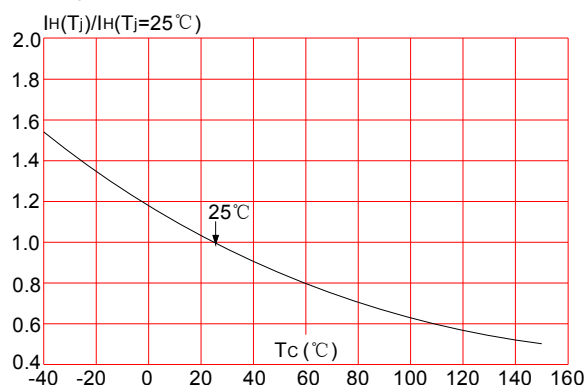
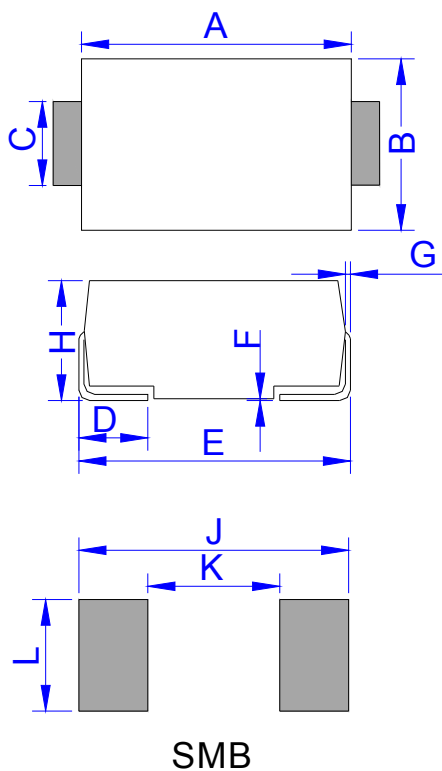


FIG.4: Normalized DC holding current vs. case temperature



PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.75	0.167	0.187
B	3.30	3.94	0.130	0.155
C	1.85	2.25	0.073	0.087
D	0.76	1.52	0.030	0.060
E	5.21	5.59	0.205	0.220
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.15	2.45	0.085	0.097
J	6.80		0.268	
K		2.60		0.102
L	2.40		0.094	