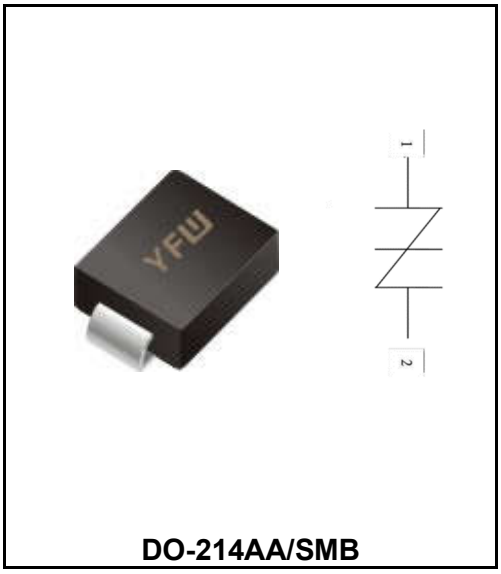
Thyristors Surge ProtectionDevice

Features

- For surface mounted applications to optimizeboard space
- Low profile package
- Bidirectional crowbar protection
- Low leakage current : I = 5uA max
- Low on-state voltage
- Solid-state silicon technology

Pb lead-free ROHS



DO-214AA/SMB

Application

- TIA-968-A/B
- ITU K.20/21 Enhanced Level*
- ITU K.20/21 Basic Level*
- GR 1089 Inter-building*
- GR 1089 Intra-building
- IEC 61000-4-5 2nd edition
- YD/T 1082 YD/T 993 YD/T 950

Absolute Maximum Ratings (TA=25ºC, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	Tstg	-60 to +150	℃
Operating junction temperature range	Tj	-40 to +150	℃

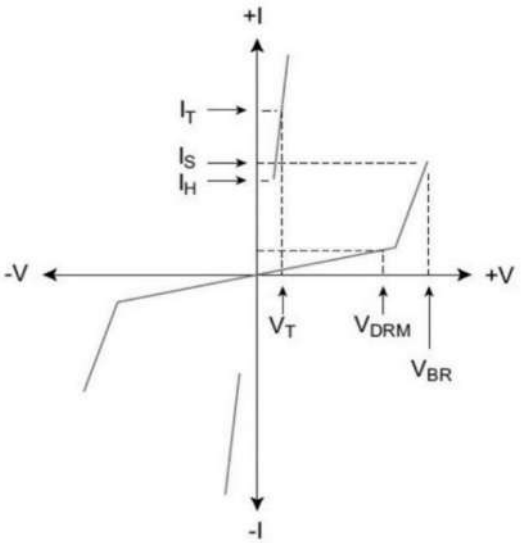
Part Number Code

Series code: P SIDACtor → P XXXX S A ← Surge： 10/700uS 40Ω 2KV

XXXX: V_{DRM} S: SMB

Electrical Parameters & V-I Curve

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



ElectricalCharacteristics(TA=25℃)

Type	V_{DRM}	I_{DRM}	V_S	I_S	V_T	I_T	C_o	I_H
	Min.	Max.	Max.	Max.	Max.		Typ.	Min.
	V	uA	V	mA	V	A	pF	mA
P0080SA	6	5	25	800	4	2.2	50	20
P0220SA	15	5	32	800	4	2.2	50	50
P0300SA	25	5	40	800	4	2.2	70	50
P0640SA	58	5	77	800	4	2.2	50	100
P0720SA	65	5	88	800	4	2.2	50	100
P0900SA	75	5	98	800	4	2.2	45	100
P1100SA	90	5	130	800	4	2.2	45	100
P1300SA	120	5	160	800	4	2.2	45	100
P1500SA	140	5	180	800	4	2.2	40	100
P1800SA	170	5	220	800	4	2.2	40	100
P2000SA	180	5	220	800	4	2.2	40	100
P2300SA	190	5	260	800	4	2.2	35	100
P2600SA	220	5	300	800	4	2.2	35	100
P3100SA	275	5	350	800	4	2.2	30	100
P3500SA	320	5	400	800	4	2.2	30	100
P4000SA	360	5	460	800	4	2.2	30	100
P4500SA	420	5	540	800	4	2.2	30	100
P5000SA	500	5	600	800	4	2.2	30	100

Notes:

- All measurements are made at an ambient temperature of 25℃. IPPapplies to -40℃through +85℃temperature range.
- Off-state capacitance (CO) is measured at 1 MHz with a 2 V bias and is typical value.

Ratings And V-I Characteristics Curves (TA=25ºC,unless otherwisenoted)

FIG.1: tr × td pulse waveform

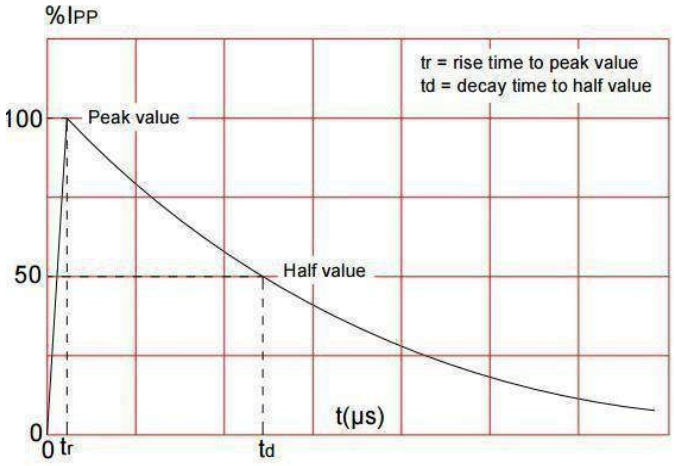


FIG.2: Reflow condition

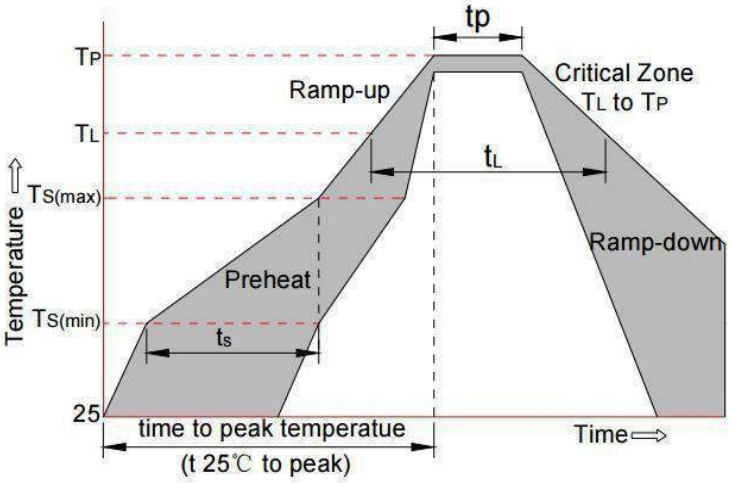


FIG.3: Normalized Vs change vs. junction temperature

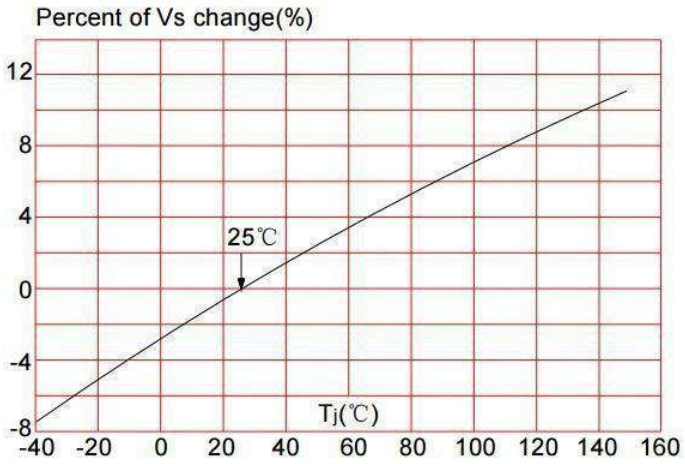
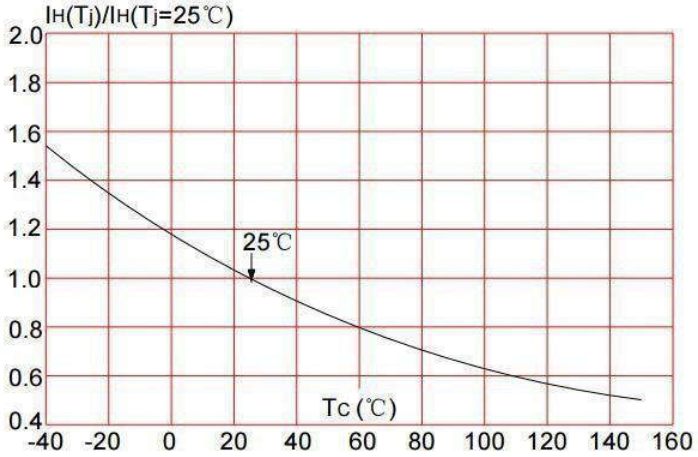
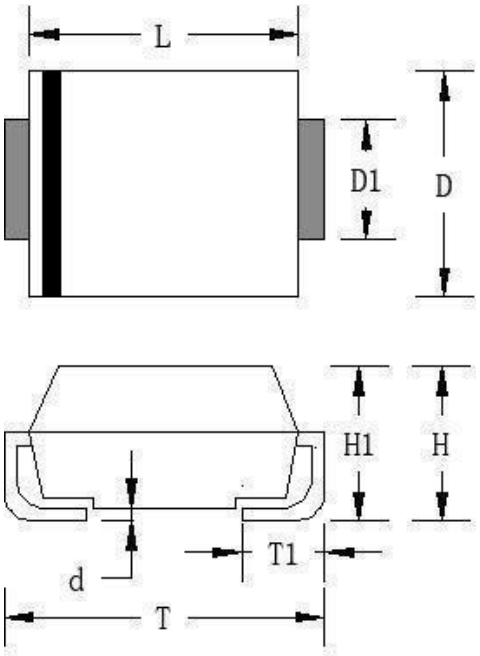


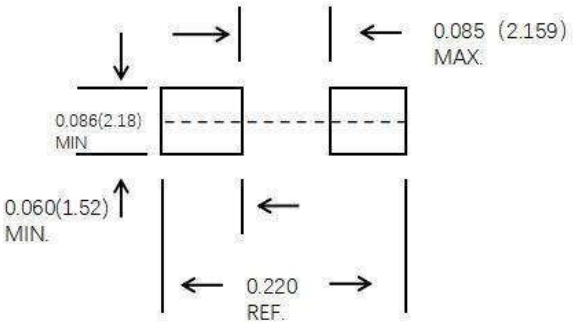
FIG.4: Normalized DC holding current vs. case temperature



Package Dimension



Ref. (mm)	Millimeters		Inches.	
	Min.	Max.	Min.	Max.
D	3.4	3.94	1.33	1.55
D1	1.9	2.1	0.074	0.083
L	4.22	4.7	0.166	0.185
T	5.21	5.59	0.205	0.22
T1	0.9	1.42	0.035	0.056
d	0	0.23	0	0.009
H	1.95	2.6	0.076	0.102
H1	2	2.34	0.078	0.092



Ordering Information

Out line	Reel (pcs)	Per carton (pcs)	Reel diameters (mm)
Taping	2.5K	40K	330