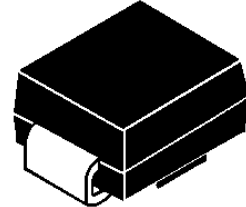




## Thyristor Surge Protection Devices

### Features

- SMA or SMB Package
- Bi-directional Configurations
- Low Leakage <5 uA
- Quick Response to Surge Voltage
- RoHS Compliant in Lead-Free Versions



### Applications

- T1/E1 Trunk & Line Card
- RS-485/RS-232/RS-422
- Video/audio line

### Absolute Maximum Ratings

Parameter	Symbol	Value	Units
Surge Ratings (10/700us)		See surge ratings	V
Storage Temperature Range	T <sub>STG</sub>	-55 to 150	°C
Operating Junction Temperature Range	T <sub>J</sub>	-55 to 150	°C

### Electrical Characteristics

 Ratings at 25°C ambient temperature unless otherwise specified.

Device	V <sub>RWM</sub> (V)	V <sub>s</sub> (V) @ I <sub>s</sub>	V <sub>T</sub> (V) @ I <sub>T</sub>	I <sub>DRM</sub> (uA) @ V <sub>RWM</sub>	I <sub>s</sub> (mA)	I <sub>T</sub> (A)	I <sub>H</sub> (mA)	Co(pF) @VR=2V F = 1 MHz
	Max	Max	Max	Max				Max
P0080S_	6	25	4	5.0	800	2.2	50	100
P0300S_	25	40	4	5.0	800	2.2	50	110
P0640S_	58	77	4	5.0	800	2.2	150	50
P0720S_	65	88	4	5.0	800	2.2	150	50
P1800S_	160	220	4	5.0	800	2.2	150	40
P2300S_	190	260	4	5.0	800	2.2	150	30
P2600S_	220	300	4	5.0	800	2.2	150	30
P3100S_	275	350	4	5.0	800	2.2	150	30
P3500S_	320	400	4	5.0	800	2.2	150	30
P4200S_	390	500	4	5.0	800	2.2	150	30

\*For individual "SA", "SB", "SC" surge ratings, see table below.

\*\*"Co" is a typical value for "SA" and "SB" product. "SC" capacitance is approximately 2x the listed value.

"Co" of P0080SB is equal to the "SC" device.

## Surge Ratings

Series	$I_{PP}(A)$ 2x10us	$I_{PP}(A)$ 8x20us	$I_{PP}(A)$ 10x160us	$I_{PP}(A)$ 10x560us	$I_{PP}(A)$ 10x1000us	$I_{TSM}(A)$ 60Hz	di/dt (A/us)
A	150	150	90	50	45	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150	100	30	500

## Package

Series	Package
A	SMA or SMB
B	SMB
C	SMB

## Characteristics

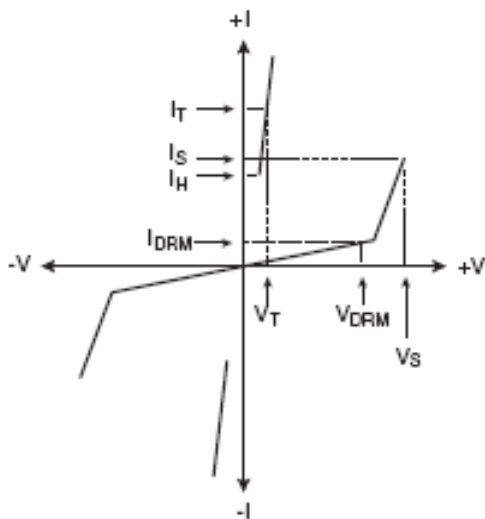


Fig1. V-I Chaeristics

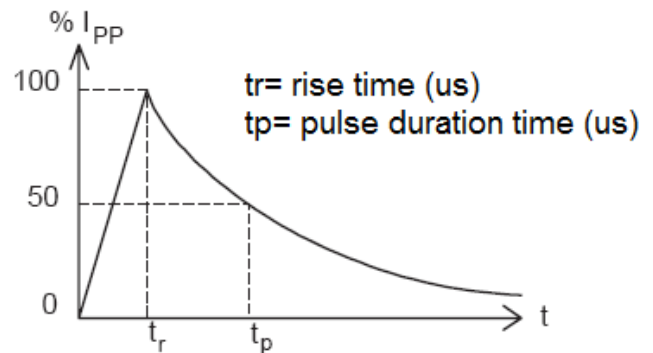
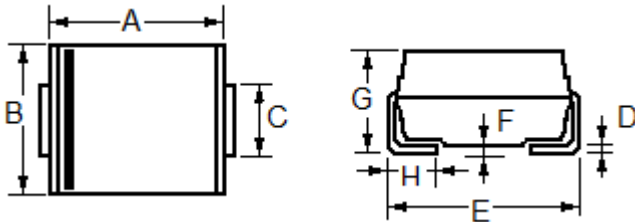


Fig2. Pulse Waveform ( $t_r=10us$   $t_p=700us$ )

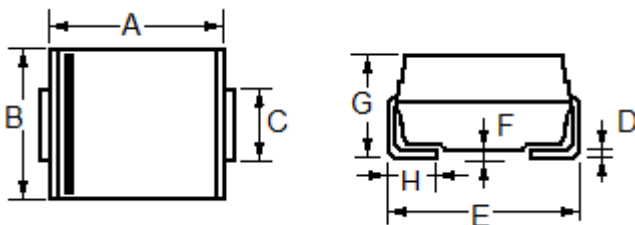
## Package Dimensions

### DO-214AC(SMA)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	3.99	4.57	0.157	0.180
B	2.29	2.92	0.09	0.115
C	1.25	1.65	0.049	0.065
D	0.152	0.405	0.006	0.016
E	4.83	5.59	0.190	0.220
F	----	0.203	----	0.008
G	1.91	2.41	0.075	0.095
H	0.76	1.52	0.030	0.060

### DO-214AA (SMB)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	4.06	4.57	0.160	0.180
B	3.30	3.94	0.130	0.155
C	1.95	2.20	0.077	0.086
D	0.13	0.31	0.006	0.012
E	5.08	5.59	0.200	0.220
F	-	0.20	-	0.008
G	2.13	2.44	0.084	0.096
H	0.76	1.52	0.030	0.060