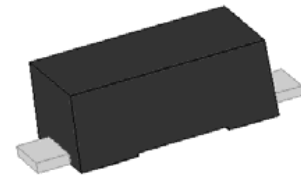


Thyristor Surge Suppressors (TSS)

P0080GA0A
SOD-123FL

Description

P0080GA0A is a type of semiconduct component. It is designed to protect base band equipment from damaging overvoltage transients.


SOD-123FL

Features and Benefits

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

Schematic Symbol

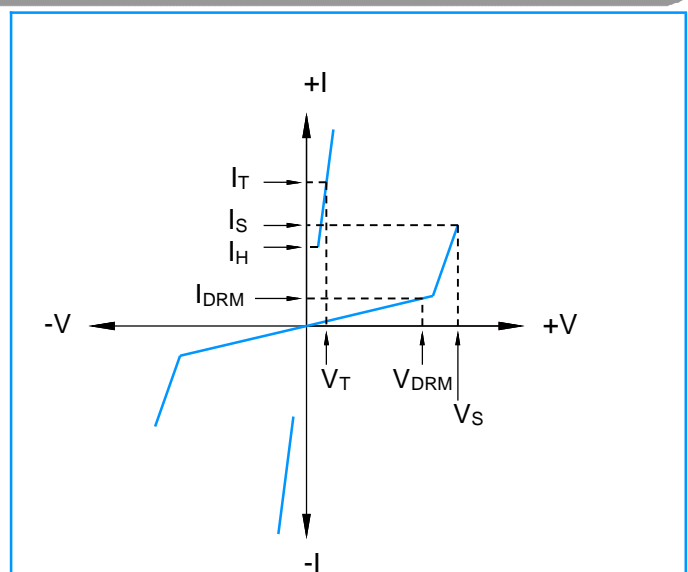


Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage Temperature Range	T_{STG}	-60 to +150	$^{\circ}\text{C}$
Operating Junction Temperature Range	T_J	-40 to +125	$^{\circ}\text{C}$
Repetitive Peak Pulse Current @10/1000 μs	I_{PP}	35	A

Electrical Characteristics ($T_A=25^{\circ}\text{C}$)

Symbol	Parameter
I_S	Switching Current
I_{DRM}	Off-state Current
I_H	Holding Current
I_T	On-state Current
V_S	Switching Voltage
V_{DRM}	Peak Off-state Voltage
V_T	On-state Voltage
C_o	Off-state Capacitance



Thyristor Surge Suppressors (TSS)

P0080GA0A
SOD-123FL

Electrical Characteristics (T_A=25°C)

Part Number	Marking	I _{DRM} @ V _{DRM}		V _S ^① @ I _S		V _T @ I _T		I _H	C _O ^②
		(μA)	(V)	(V)	(mA)	(V)	(A)	(mA)	(pF)
		max	min	max	max	max	max	min	max
P0080GA0A	P8AC	5	6	15	800	4	2.2	10	10

Notes:

 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				
	2/10μs	8/20μs	10/360μs	10*700/5*320μs	10/1000μs
A	100	90	50	50	35

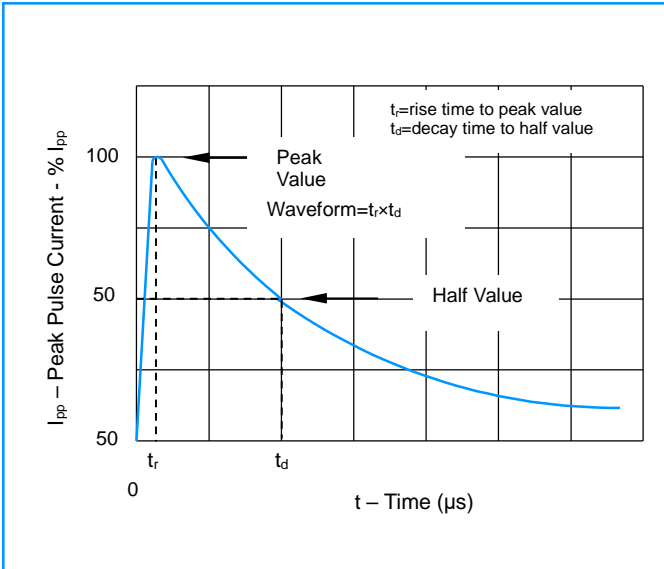
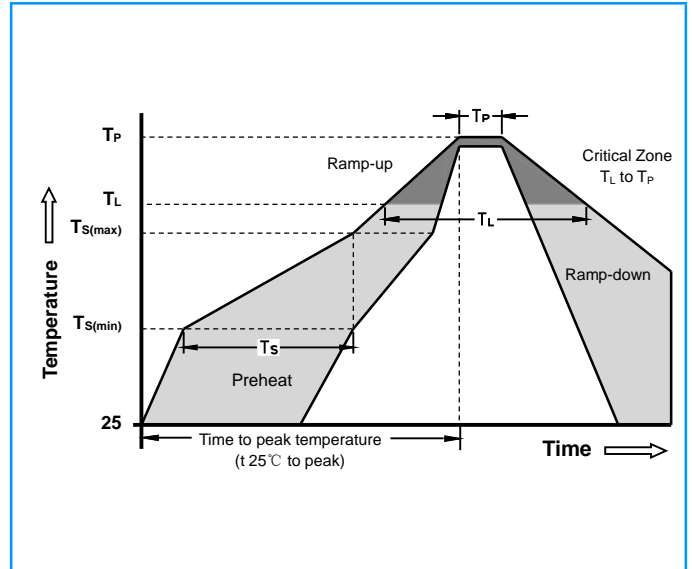
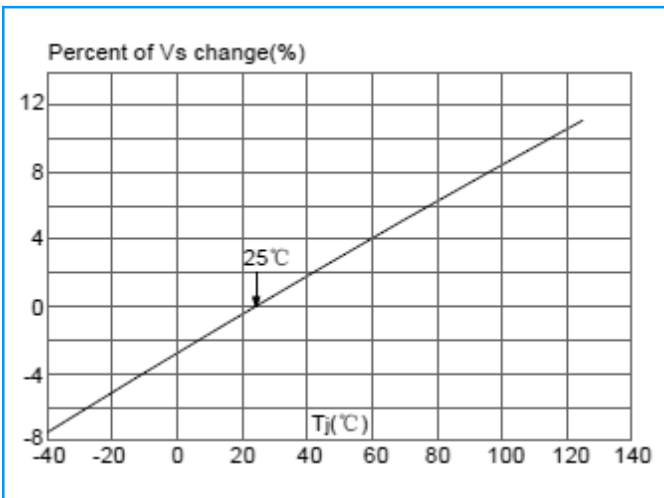
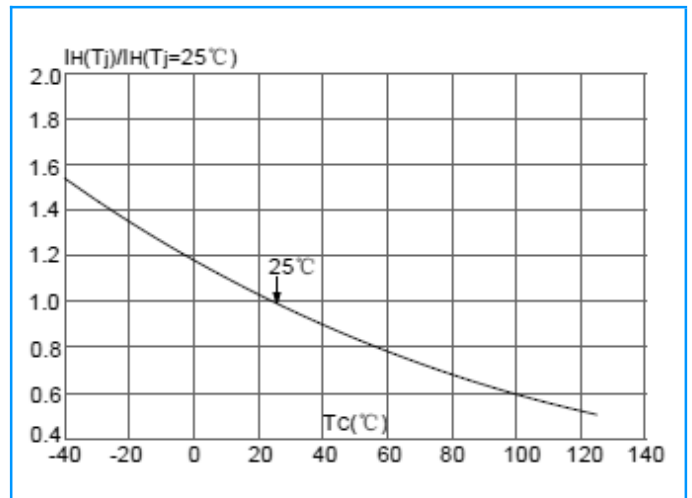
Soldering Parameters

Reflow Condition		Lead-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 Seconds
Average ramp up rate (Liquidus Temp T_L) to peak		3°C/Second Max
T_{S(max)} to T_L - Ramp-up Rate		3°C/Second Max
Reflow	- Temperature (T _L) (Liquidus)	+217°C
	- Time (min to max) (T _L)	60 -150 Seconds
Peak Temperature (T_P)		260 (+0/-5)°C
Time within 5°C of actual peak Temperature (t_p)		30 Seconds Max
Ramp-down Rate		6°C/Second Max
Time 25°C to peak Temperature (T_P)		8 minutes Max
Do not exceed		+260°C

Thyristor Surge Suppressors (TSS)

P0080GA0A
SOD-123FL

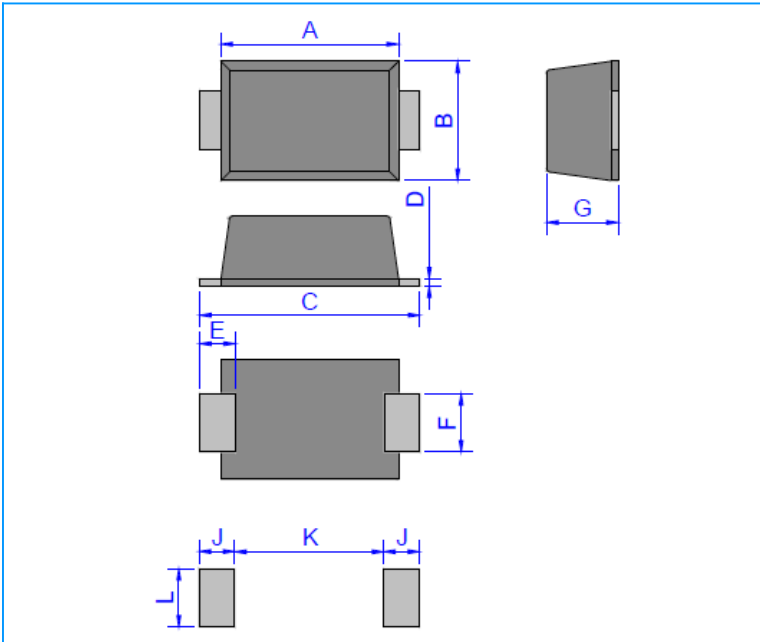
Characteristic Curves

Fig.1 $t_r \times t_d$ Pulse Waveform

Fig.2 Reflow Condition

Fig.3 Normalized V_s Change vs. Junction Temperature

Fig.4 Normalized DC Holding Current vs. Case Temperature


Thyristor Surge Suppressors (TSS)

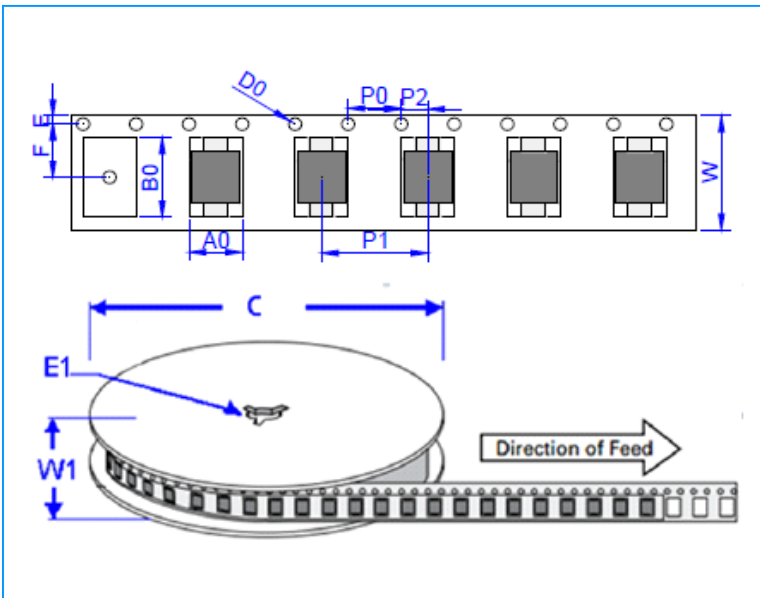
P0080GA0A
SOD-123FL

SOD-123FL Package Mechanical Data



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.60	3.00	0.102	0.118
B	1.60	2.00	0.063	0.079
C	3.45	3.95	0.136	0.156
D	0.10	0.25	0.004	0.010
E	0.30	0.90	0.012	0.035
F	0.80	1.20	0.031	0.047
G	0.95	1.35	0.037	0.053
J	1.30	--	0.051	--
K	--	1.70	--	0.067
L	1.30	--	0.051	--

SOD-123FL Tape and Reel Specification



Ref.	Dimensions	
	Millimeters	Inches
A0	1.95 ± 0.3	0.077 ± 0.012
B0	3.95 ± 0.3	0.156 ± 0.012
C	178	7.0
D0	1.55 ± 0.1	0.061 ± 0.004
E	1.75 ± 0.2	0.069 ± 0.008
E1	13.3 ± 0.3	0.524 ± 0.012
F	3.50 ± 0.2	0.138 ± 0.008
P0	4.00 ± 0.2	0.157 ± 0.008
P1	4.00 ± 0.2	0.157 ± 0.008
P2	2.00 ± 0.2	0.079 ± 0.008
W	8.0 ± 0.2	0.315 ± 0.008
W1	11.5 ± 1.0	0.453 ± 0.039

Packaging

Part Number	Package	Reel (PCS)	Description
P0080GA0A	SOD-123FL	3000	7 inch reel pack