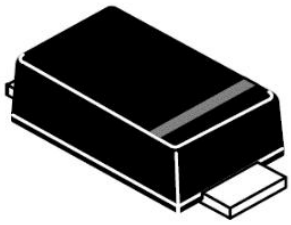
Description

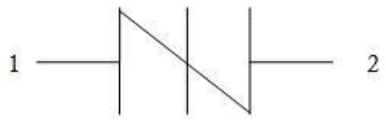
P0300FA is a type of semiconduct component. It is designed to protect baseband equipment from damaging overvoltage transients.

Features

- Cannot be damaged by voltage
- Eliminate hysteresis and heat dissipation typically found with clamping devices Eliminate voltage overshoot caused by fast-rising transients
- Are non-degenerative
- Will not fatigue
- Have low capacitance, making them ideal for high-speed transmission equipment
- Meets MSL level 1, per J-STD-020

Dimensions & Symbol





Symbol

Mechanical Characteristics

Package: SMF/SOD-123

- Case Material: “Green” Molding Compound.
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0
- Standard Packaging: 12mm tape (EIA STD RS-481)
- Weight: 0.02g
- Terminal Connections: See Diagram Below
- Marking Information: See Below

Applications

- SLIC Line Card
- T1/E1 Trunk & Line Card
- DBX Branch Exchange Switches
- FCC Part 68 Customer Premise Equipment
- Line Interface Modem
- xDSL Architecture Interface

Marking Information



Details marking code reference customer approval list

Ordering Information

Part Number	Packaging	Reel Size
P0300FA	3000/Tape & Reel	7 inch

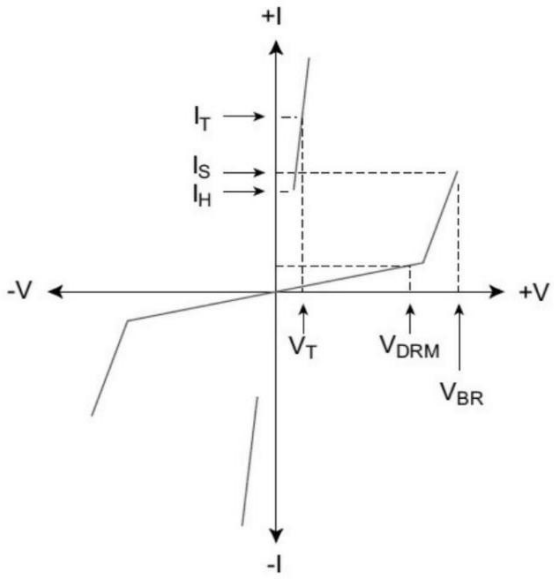
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Absolute Maximum Ratings (TA=25ºC, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T_{stg}	-60 to +150	℃
Operating junction temperature range	T_j	-40 to +150	℃
Repetitive peak pulse current	I_{PP}	30	A

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



Surge Ratings

Series	I_{PP} (A) min			
	2×10us	8×20us	10/700us	10×1000us
A	150	150	50	30

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Electrical Characteristics (TA=25℃)

Type	V_{DRM}	I_{DRM}	V_S	I_S	V_T	I_T	C_O	I_H
	Min.	Max.	Max.	Max.	Max.		Max.	Min.
	V	μA	V	mA	V	A	pF	mA
P0300FA	25	5	40	800	4	2.2	40	10

Notes:

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

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

FIG.1: tr × td pulse waveform

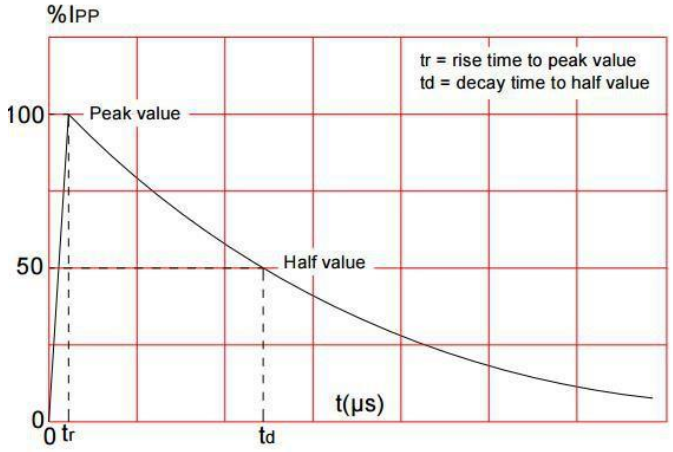


FIG.2: Reflow condition

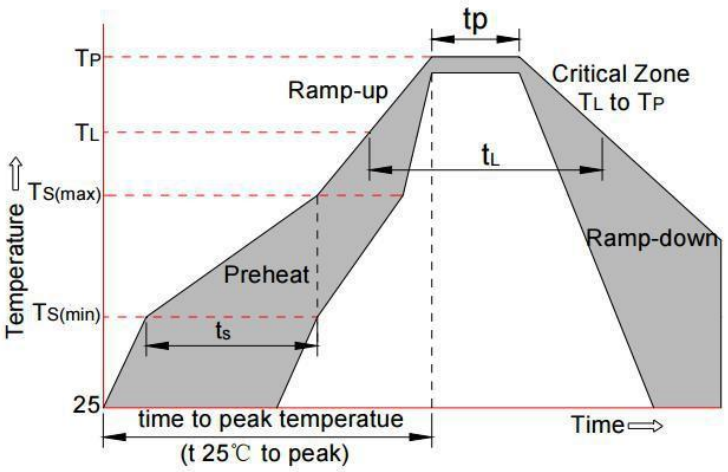


FIG.3: Normalized Vs change vs. junction temperature

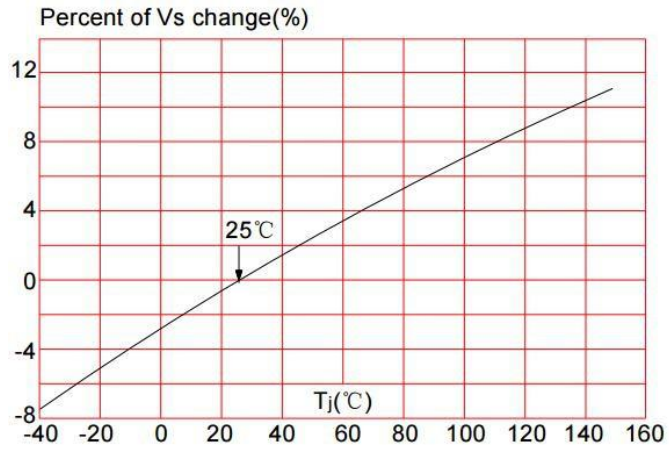
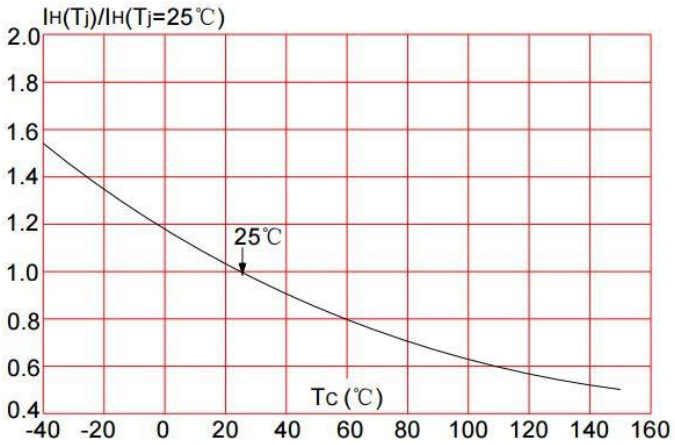


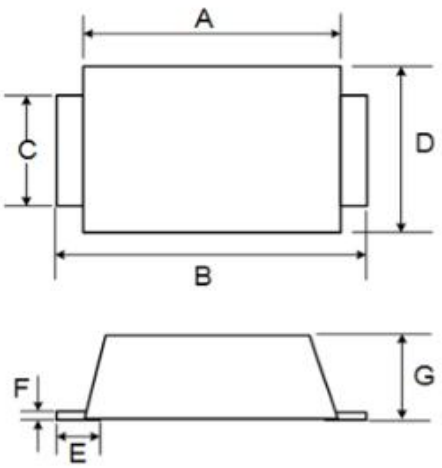
FIG.4: Normalized DC holding current vs. case temperature



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Package Mechanical Data

Ref.(mm)	Millimeters	
	Min.	Max.
A	2.5	3.0
B	3.4	4.0
C	0.7	1.1
D	1.5	1.9
E	0.45	0.95
F	0.05	0.26
G	0.9	1.1



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