

## FEATURES

- Excellent capability of absorbing transient surge
- Quick response to surge voltage
- Eliminates over voltage caused by fast rising transients
- Solid-state silicon technology, non degenerate



SOD-123FL



Marking



Schematic Symbol

## APPLICATIONS

- Audio/Video line
- Network and telecom
- Data lines and security systems
- Serial ports

## APPROVALS

<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC61249-2-21:2003

## ELECTRICAL CHARACTERISTICS

Part Number	$V_{DRM}$	$V_S$	$V_T$	$I_{DRM}$	$I_S$	$I_T$	$I_H$	$C_o$
	Min. (V)	Max. (V)	Max. (V)	Max. ( $\mu A$ )	mA	Max. (A)	Min. (mA)	Typ.(pF)
P0300FM	25.0	40.0	4.0	5.0	800.0	2.2	50.0	60.0

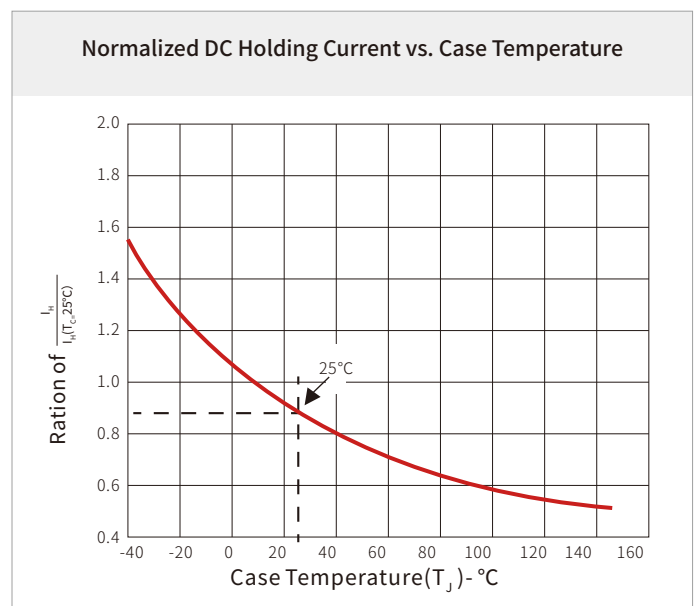
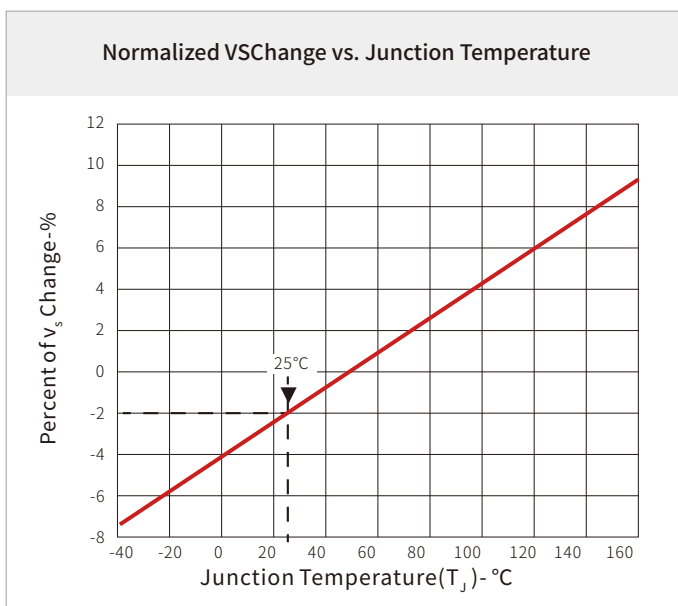
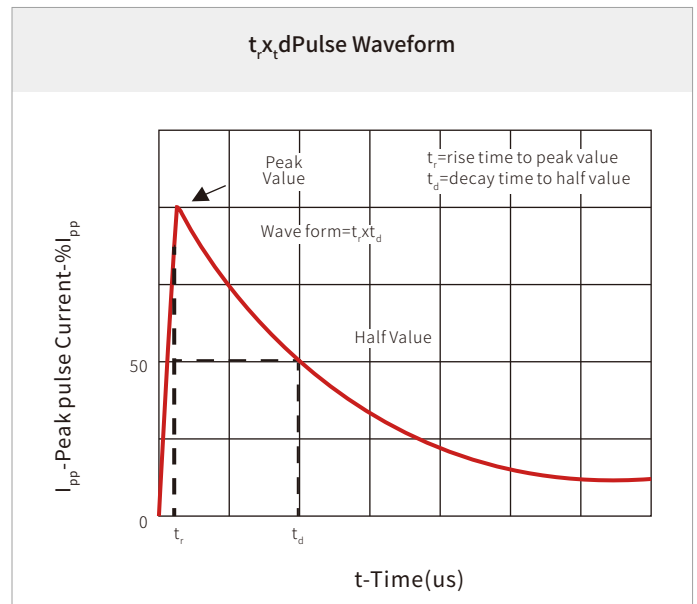
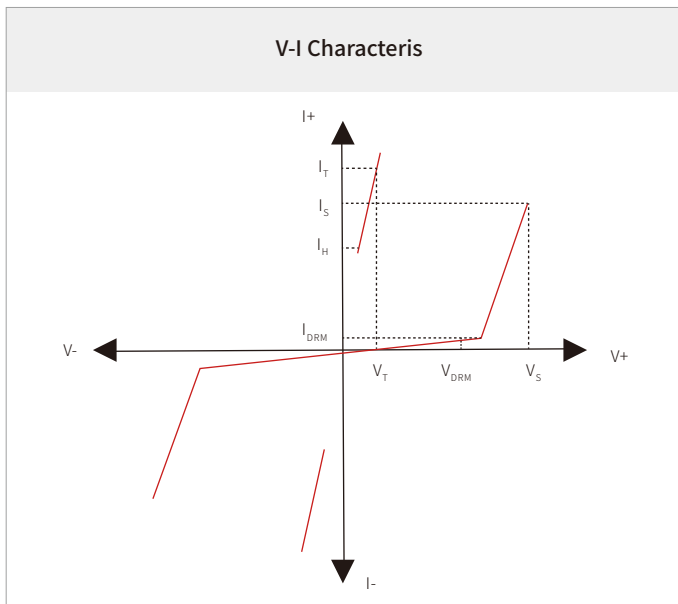
## SURGE RATINGS

Part Number	$V_{PP}$ 10x700us (V)
	(V)
P0300FM	2000

## THERMAL CONSIDERATIONS

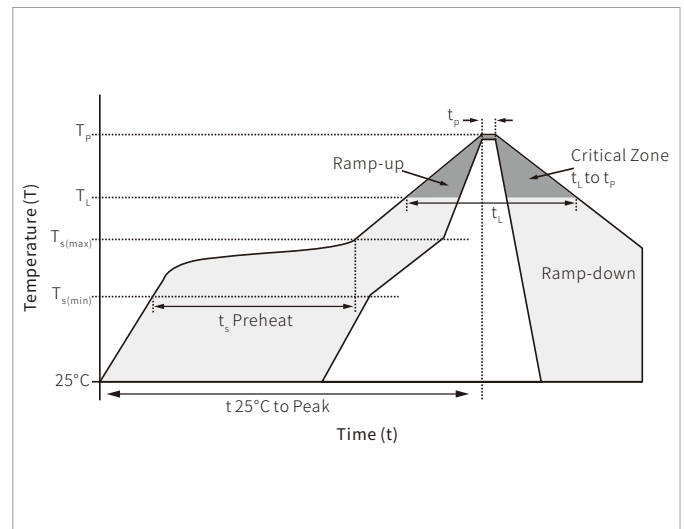
Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Junction to Ambient on printed circuit	120	°C/W
$T_J$	Operating Junction Temperature	-55 to +125	°C
$T_{STG}$	Storage Temperature Range	-55 to +150	°C

## RATINGS AND CHARACTERISTIC CURVES ( $T_A=25^\circ\text{C}$ )

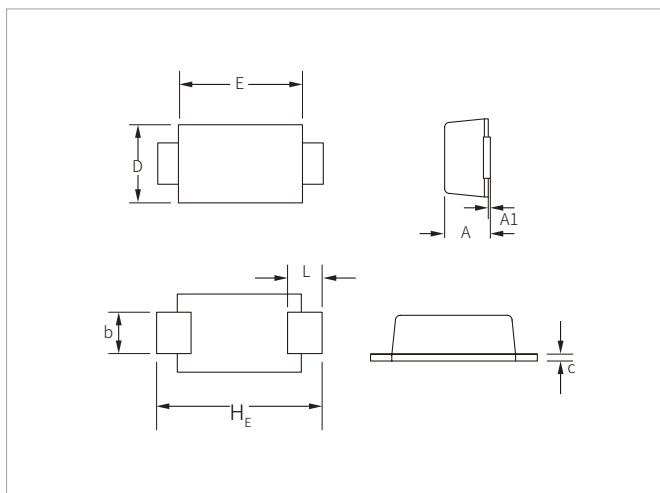


## SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ( $T_{s(min)}$ )	150°C
	Temperature Max ( $T_{s(max)}$ )	200°C
	Time (min to max) ( $t_s$ )	60 – 180 secs
Average ramp up rate (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°C
Time within 5°C of actual peak Temperature ( $t_p$ )		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature ( $T_p$ )		8 minutes max.
Do not exceed		260°C

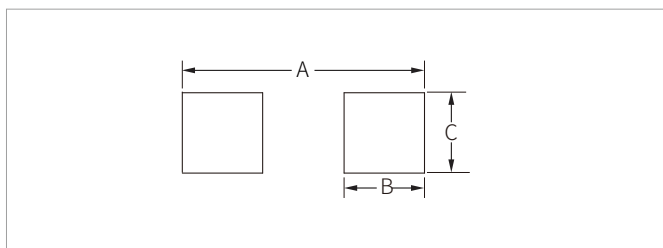


## SOD-123FL PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.95	1.45	0.037	0.057
A1	0.00	0.10	0.000	0.004
b	0.70	1.20	0.028	0.047
c	0.05	0.30	0.002	0.012
D	1.50	2.00	0.059	0.079
E	2.50	3.10	0.098	0.122
L	0.35	0.90	0.014	0.035
HE	3.40	3.90	0.134	0.154

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
A	4.20	0.165
B	1.50	0.059
C	1.20	0.047

## ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
P0300FM	SOD-123FL	3000PCS	7"

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