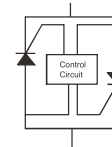


FEATURES

- | Fast switching
- | Automatically resets after power cycle
- | Available in low profile, small footprint SOD-123FL
- | Compatible with industrial lighting environments
- | Compatible with PWM frequencies up to 30 KHz
- | Meet AEC-Q101 Requirements



SOD-123FL



Schematic Symbol

APPROVALS

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

ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$)

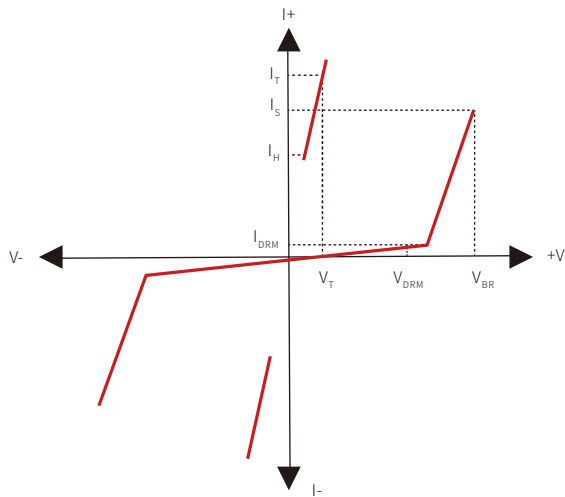
Part Number	Device Marking Code	Breakdown V_{BR}		Breakdown V_{DRM}	I_H	I_S	$I_T@V_T$	$I_T@V_T=1A$	Critical Rate Of Rise d_v/d_t
		Min.(V)	Max.(V)	Min.(V)	Min.(mA)	Max.(mA)	Max.(A)	Max.(V)	Max.(V/us)
PLED13FQ	PL13	13.0	26.0	13.0	5.0	100.0	1.0	1.2	250.0

THERMAL CONSIDERATIONS

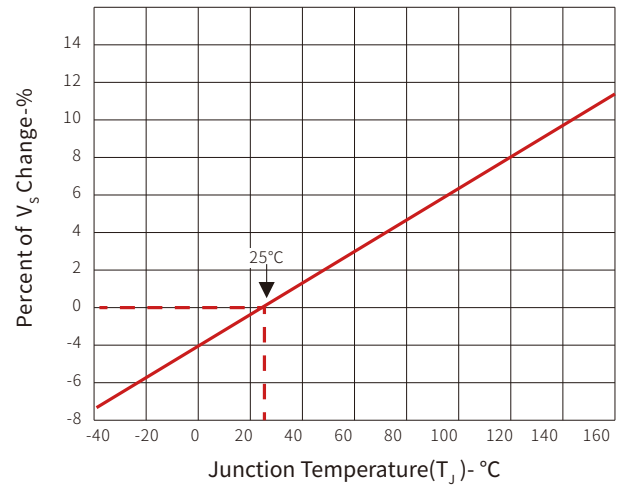
Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Junction to Ambient on printed circuit	220	$^{\circ}\text{C/W}$
T_J	Operating Junction Temperature	-40 to +150	$^{\circ}\text{C}$
T_S	Storage Temperature Range	-40 to +150	$^{\circ}\text{C}$

TYPICAL DEVICE CHARACTERISTICS

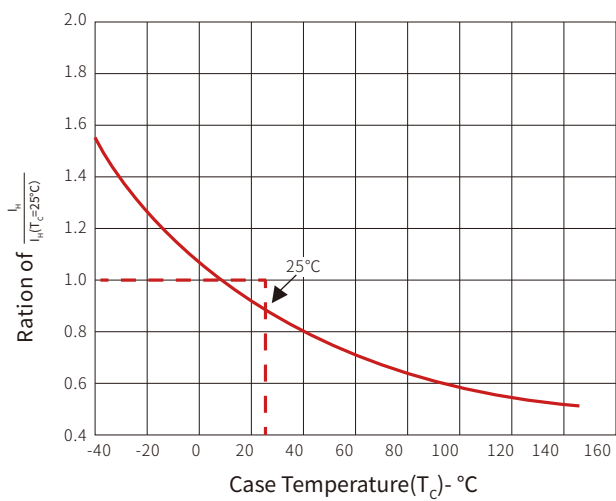
V-I Characteris



Normalized V_s Change vs. Junction Temperature

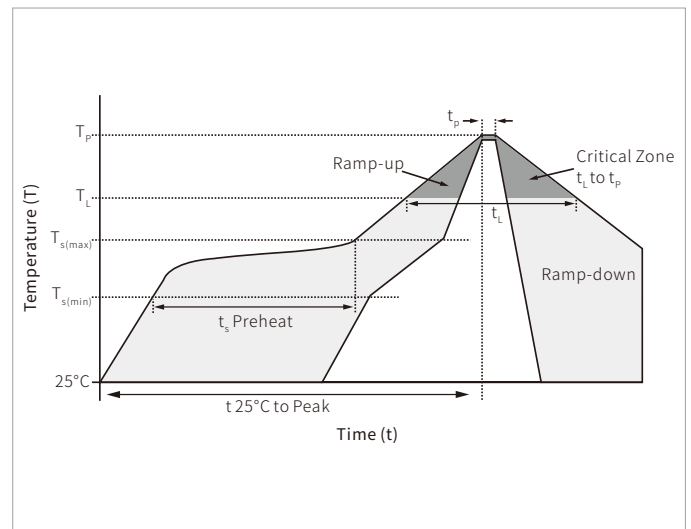


Normalized DC Holding Current vs. Case Temperature

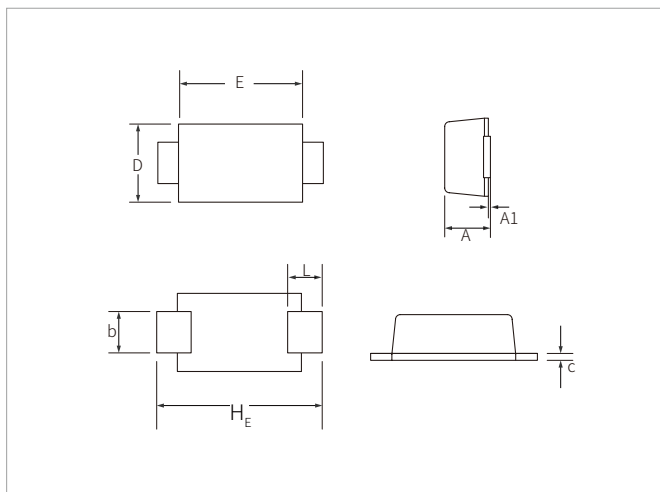


SOLDERING PARAMETERS

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

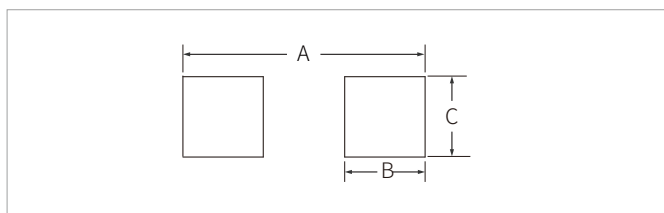


SOD-123FL PACKAGE INFORMATION



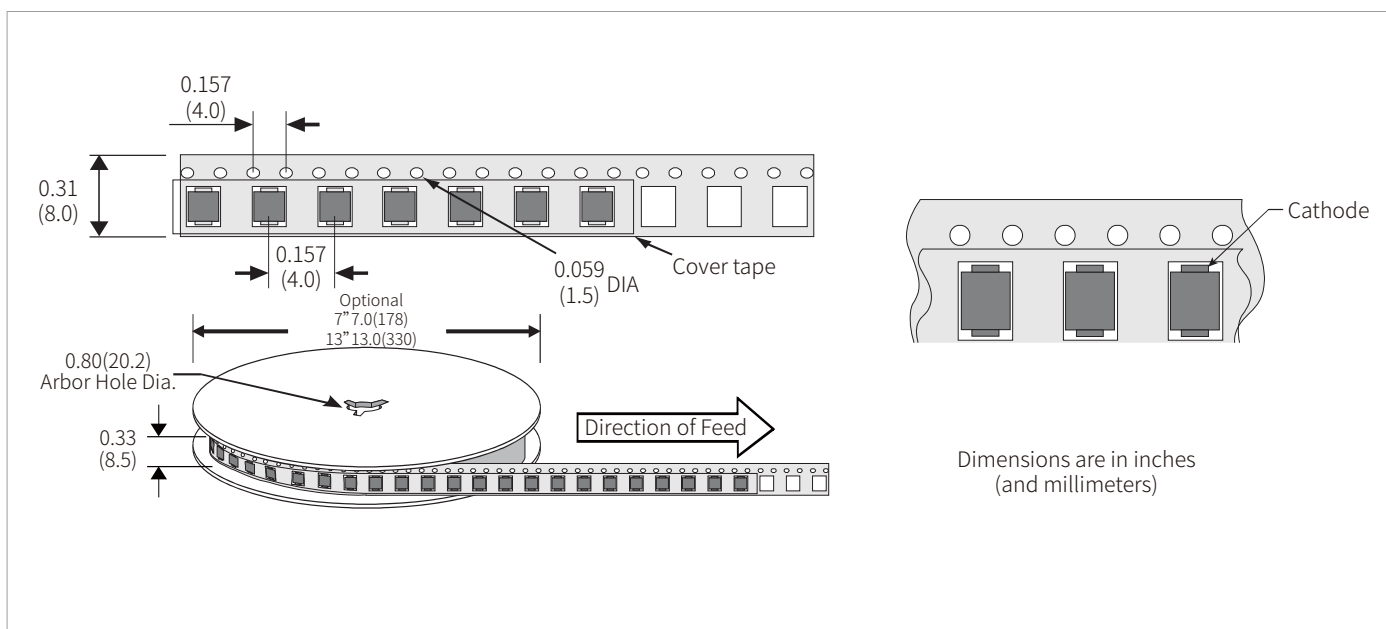
Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.95	1.45	0.037	0.057
A1	0.00	0.10	0.000	0.004
b	0.70	1.20	0.028	0.047
c	0.05	0.30	0.002	0.012
D	1.50	2.00	0.059	0.079
E	2.50	3.10	0.098	0.122
L	0.35	0.90	0.014	0.035
H _E	3.40	3.90	0.134	0.154

RECOMMENDED PAD LAYOUT DIMENSIONS



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

TAPE AND REEL SPECIFICATION



ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
PLED13FQ	SOD-123FL	3000PCS	7"

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By QR Code

Website



Wechat

To find your local partner within Semiware' s global website: www.semiware.com

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