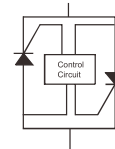


## FEATURES

- | 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

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

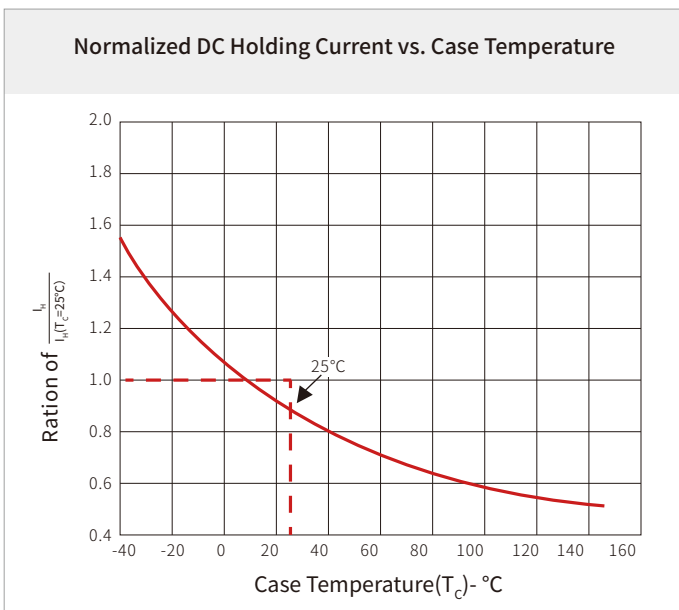
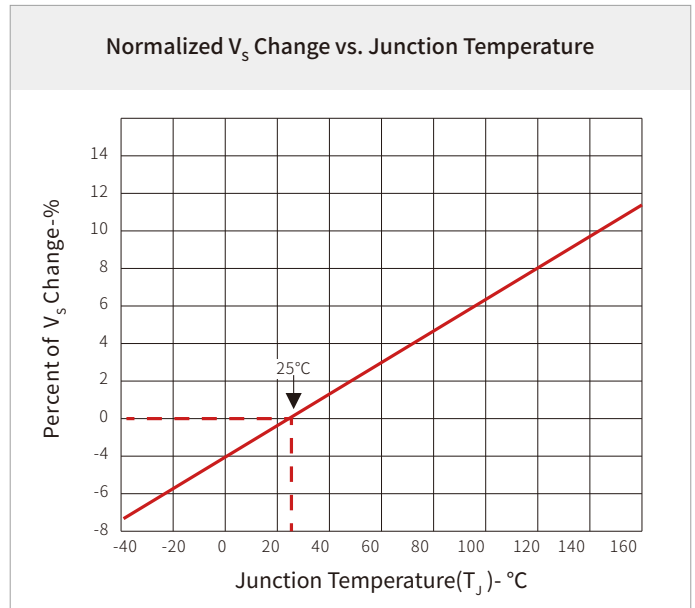
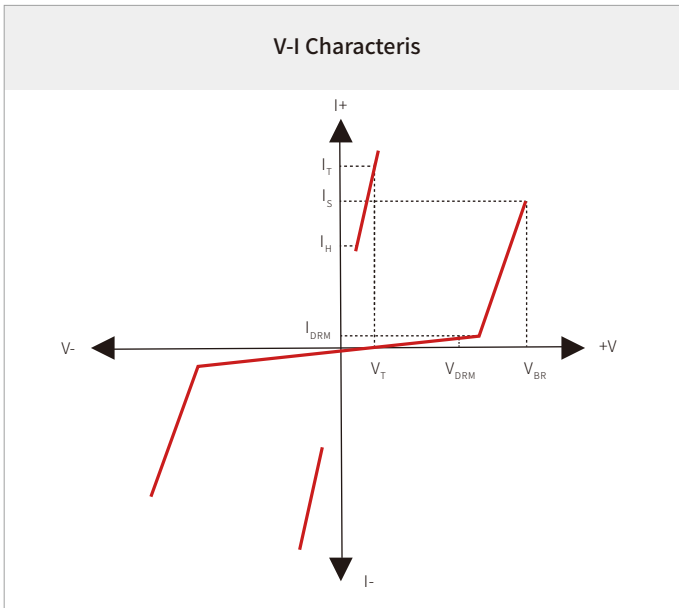
## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )

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

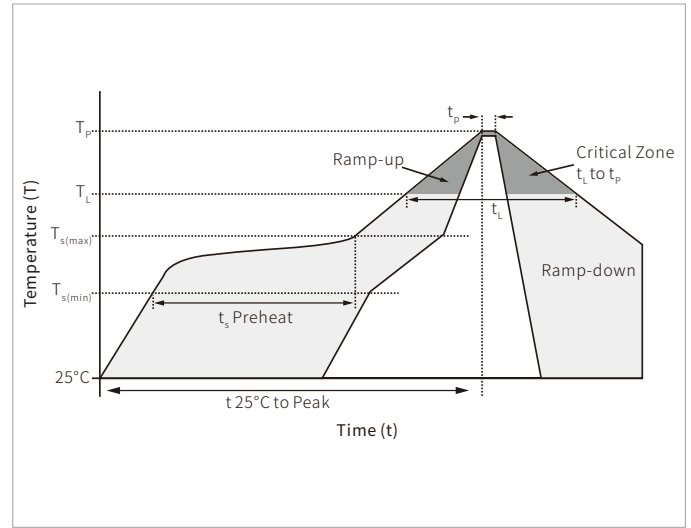
Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Junction to Ambient on printed circuit	220	$^\circ\text{C}/\text{W}$
$T_J$	Operating Junction Temperature	-40 to +150	$^\circ\text{C}$
$T_S$	Storage Temperature Range	-40 to +150	$^\circ\text{C}$

# TYPICAL DEVICE CHARACTERISTICS

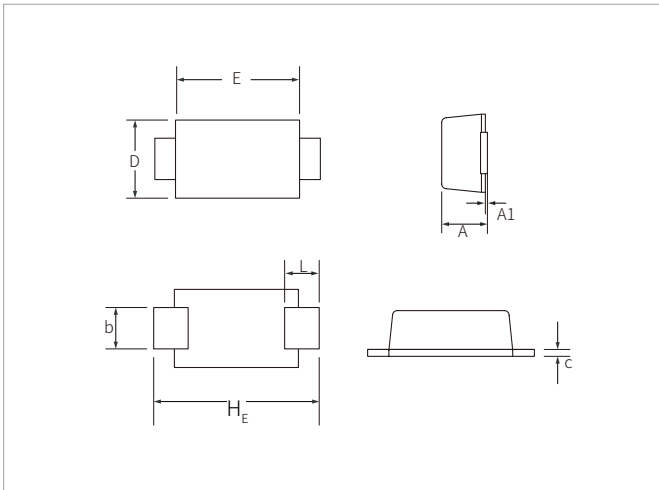


## SOLDERING PARAMETERS

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

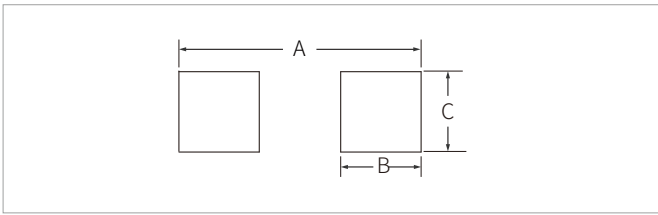


## SOD-123FL PACKAGE INFORMATION



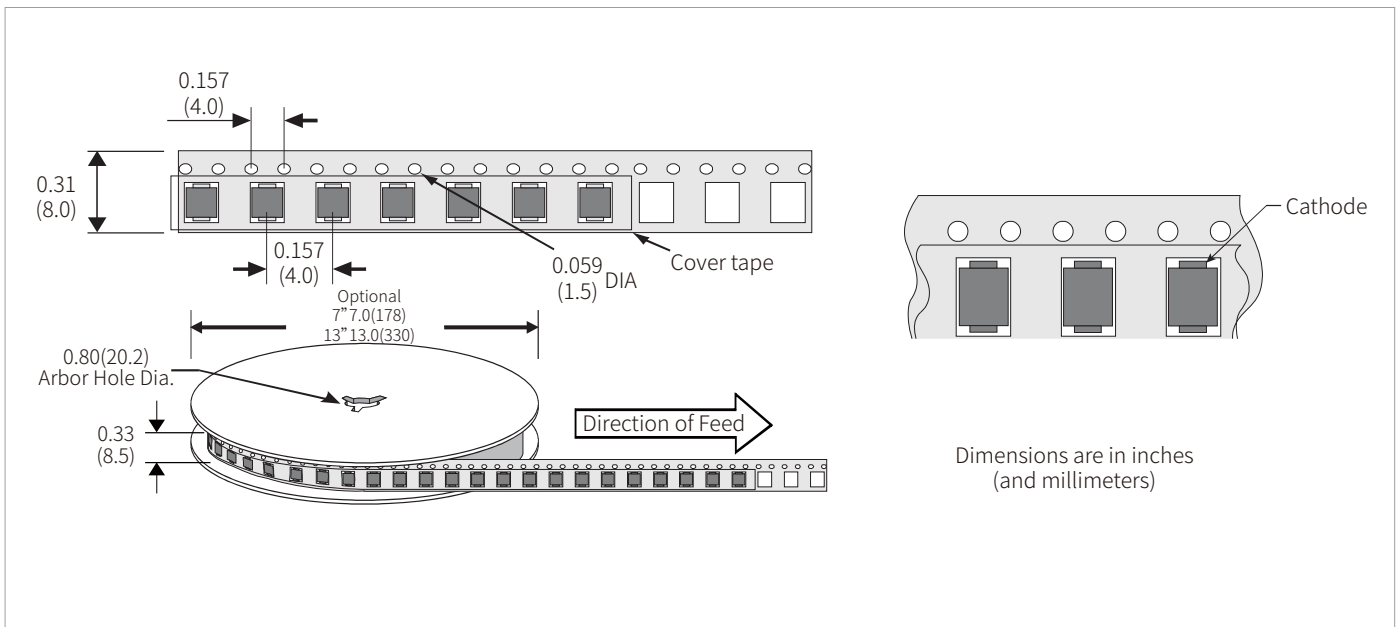
Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.95	1.45	0.037	0.057
A1	0.00	0.10	0.000	0.004
b	0.70	1.20	0.028	0.047
c	0.05	0.30	0.002	0.012
D	1.50	2.00	0.059	0.079
E	2.50	2.90	0.098	0.114
L	0.35	0.90	0.014	0.035
H <sub>E</sub>	3.40	3.90	0.134	0.154

## 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

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