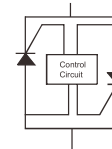


FEATURES

- | 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

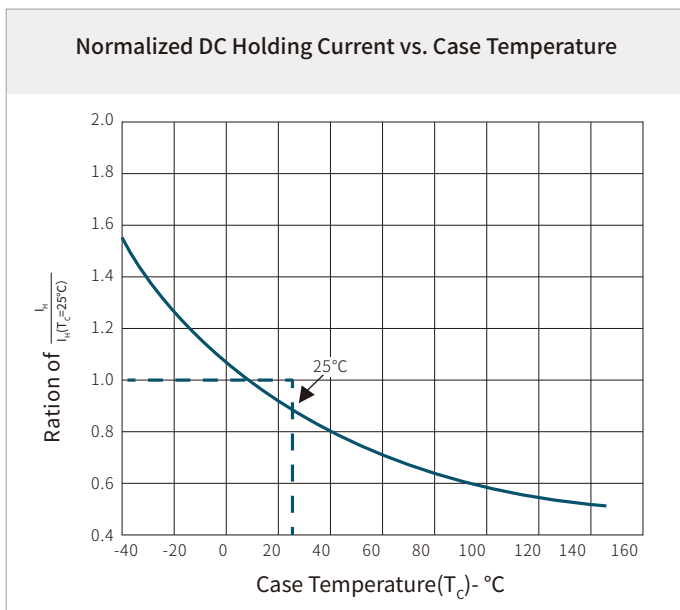
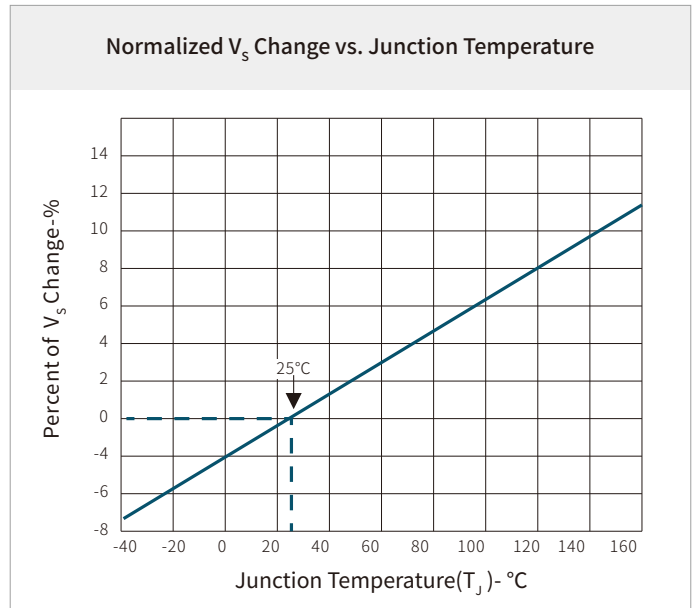
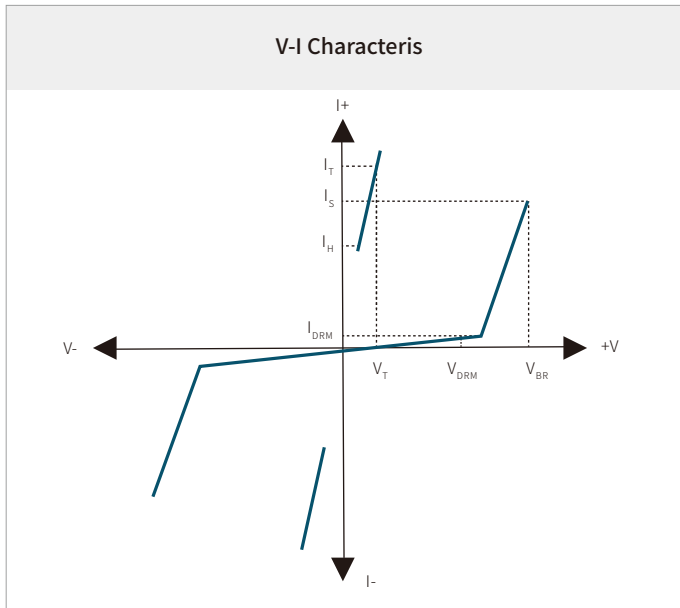
ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$)

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)
PLED06FQ	PLED06	6.0	16.0	6.0	5.0	100.0	1.0	1.2	250.0
PLED09FQ	PL9	9.0	18.0	9.0	5.0	100.0	1.0	1.2	250.0
PLED13FQ	PL13	13.0	26.0	13.0	5.0	100.0	1.0	1.2	250.0
PLED18FQ	PL18	18.0	33.0	18.0	5.0	100.0	1.0	1.2	250.0

THERMAL CONSIDERATIONS

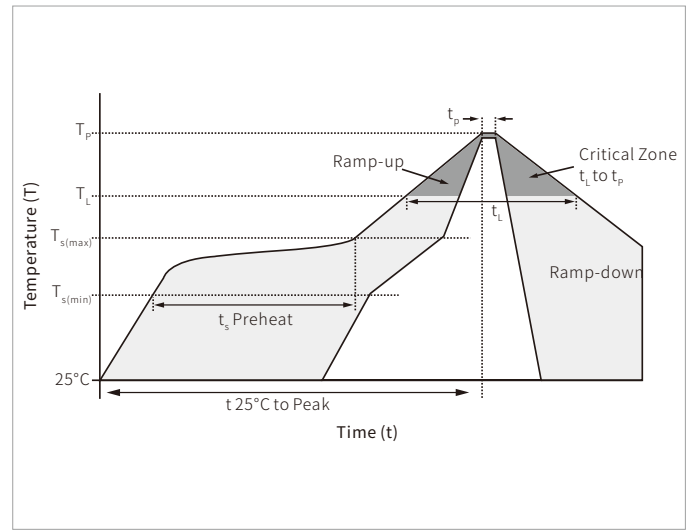
Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Junction to Ambient on printed circuit	220	$^{\circ}\text{C}/\text{W}$
T_J	Operating Junction Temperature	-40 to +150	$^{\circ}\text{C}$
T_S	Storage Temperature Range	-40 to +150	$^{\circ}\text{C}$

TYPICAL DEVICE CHARACTERISTICS

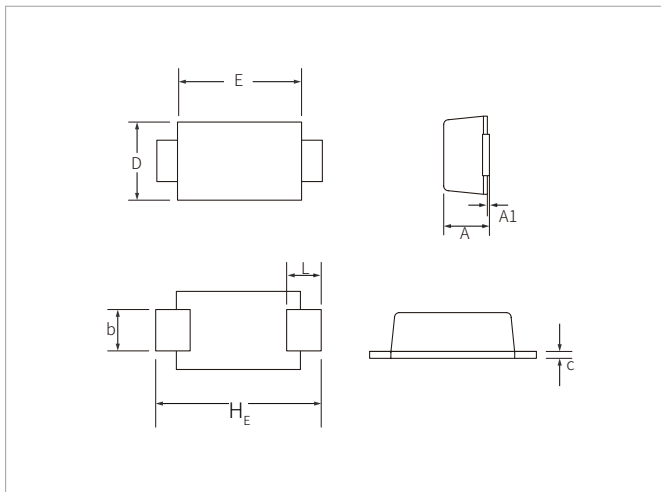


SOLDERING PARAMETERS

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

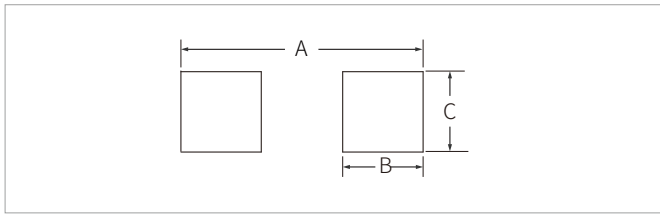


SOD-123FL PACKAGE INFORMATION



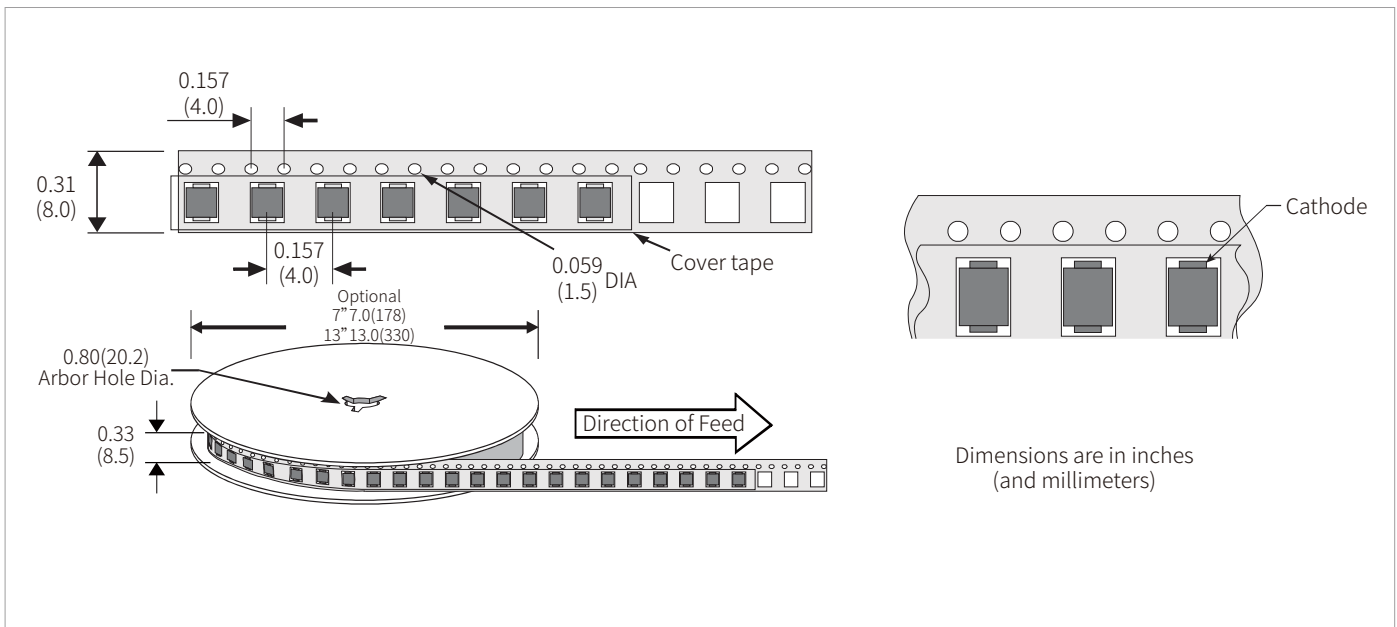
Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.95	1.45	0.037	0.057
A1	0.00	0.10	0.000	0.004
b	0.70	1.20	0.028	0.047
c	0.05	0.30	0.002	0.012
D	1.50	2.00	0.059	0.079
E	2.50	3.10	0.098	0.122
L	0.35	0.90	0.014	0.035
HE	3.40	3.90	0.134	0.154

RECOMMENDED PAD LAYOUT DIMENSIONS



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

TAPE AND REEL SPECIFICATION



ORDERING INFORMATION

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

To find your local partner within Semiwell' s website : www.semiwell.com.cn

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