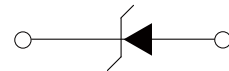


FEATURES

- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Low reverse leakage
- High forward surge current capability
- terminals



SOD-123FL



Schematic Symbol

APPLICATIONS

- Case : Molded plastic body
- Polarity : Polarity symbol marking on body
- Mounting Position : Any

APPROVALS

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

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter		Symbol	SS12D	SS13D	SS14D	SS15D	SS16D	SS17D	SS18D	SS19D	SS110D	SS115D	SS120D	Unit
Marking			D12	D13	D14	D15	D16	D17	D18	D19	D110	D115	D120	
Maximum repetitive peak reverse voltage		V _{RRM}	20	30	40	50	60	70	80	90	100	150	200	V
Maximum RMS voltage		V _{RMS}	14	21	28	35	42	49	56	63	70	105	140	V
Maximum DC blocking voltage		V _{DC}	20	30	40	50	60	70	80	90	100	150	200	V
Maximum average forward rectified current at T _L =100 C		I _{F(AV)}	1.0											A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load		I _{FSM}	30											A
Maximum instantaneous forward voltage at 1.0A		V _F	0.55			0.70		0.85				0.95		V
Maximum DC reverse current at rated DC blocking voltage	T _A =25°C	I _R	0.2					0.05					mA	
	T _A =100°C		20					5					mA	
Typical thermal resistance		R _{θJA}	85											°C/W
Operating junction temperature range		T _J	-55 to +125					-55 to +150					°C	
Storage temperature range		T _{STG}	-55 to +150											°C

CHARACTERISTIC CURVES

Fig. 1- Derating Curve Output Rectified Current

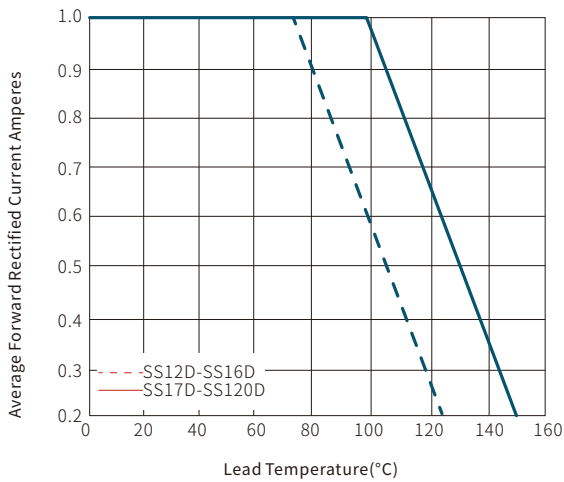


Fig. 2-maximum Non-repetitive Peak Forward Surge Current Perleg

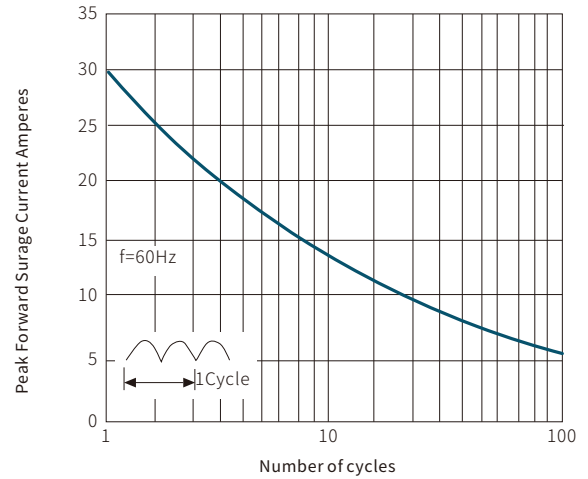


Fig. 3-typical Forward Voltage Characteristics

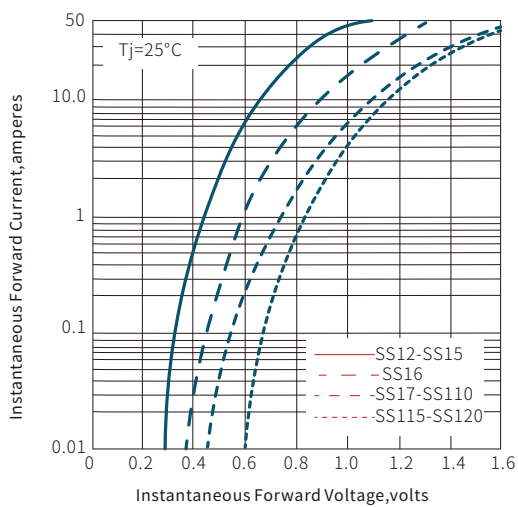
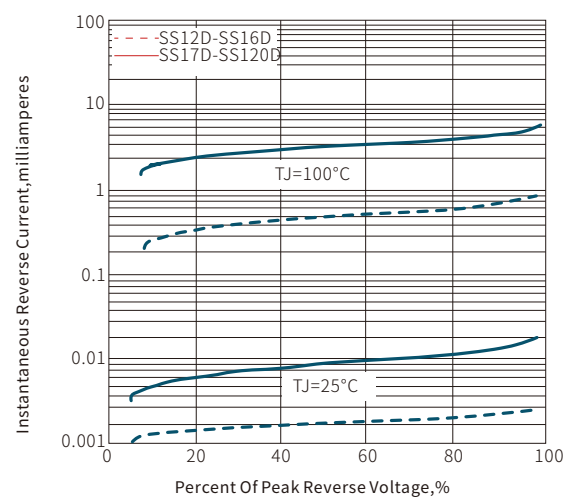
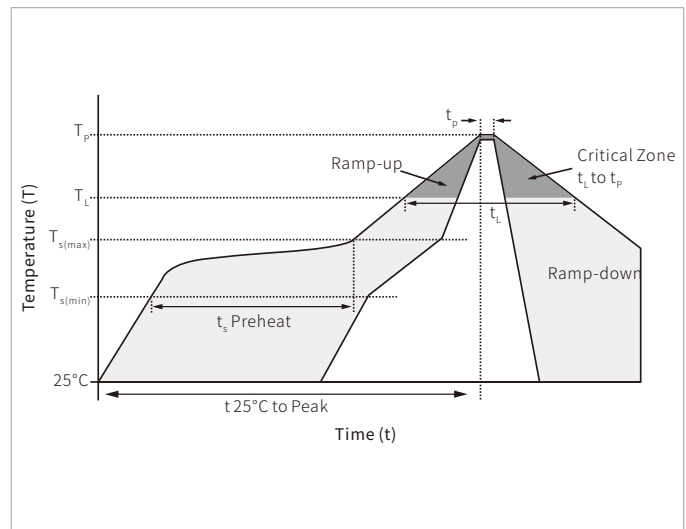


Fig. 4-typical Reverse Leakage Characteristics

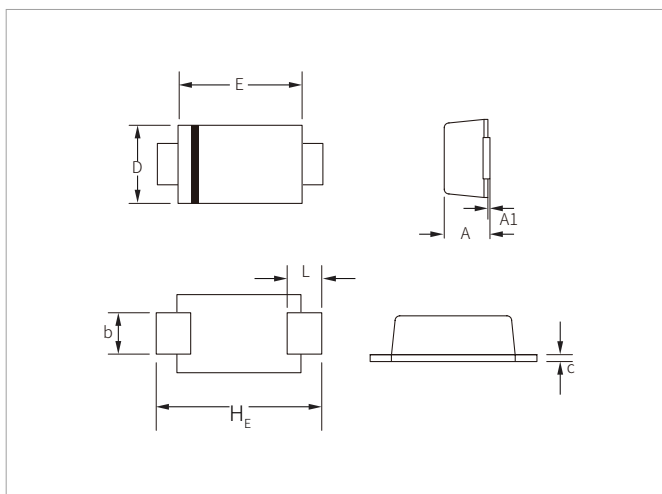


SOLDERING PARAMETERS

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

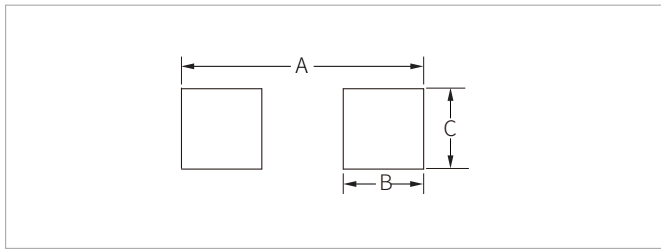


SOD-123FL PACKAGE INFORMATION



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 _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

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SS12D-SS120D	SOD-123FL	3000PCS	7"

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

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