

- High surge current capability
- Low power loss, high efficiency
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



MECHANICAL DATA

Case: SOD123HE

SOD123HE

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 whisker test

Polarity: Indicated by cathode band

Weight: 0.022g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	RS1JLS	RS1KLS	RS1M
Marking code		RJLS	RKLS	RMLS
Maximum repetitive peak reverse voltage	V_{RRM}	600	800	1000
Maximum RMS voltage	V_{RMS}	420	560	700
Maximum DC blocking voltage	V_{DC}	600	800	1000
Maximum average forward rectified current	$I_{F(AV)}$	1.2		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	50		
Maximum instantaneous forward voltage (Note 1) @ 1.2 A	V_F	1.3		
Maximum reverse current @ rated VR $T_J=25^{\circ}\text{C}$ $T_J=125^{\circ}\text{C}$	I_R	5 150		
Maximum reverse recovery time (Note 2)	t_{rr}	300		
Typical thermal resistance	$R_{\theta JC}$ $R_{\theta JA}$	26 80		
Operating junction temperature range	T_J	- 55 to +150		
Storage temperature range	T_{STG}	- 55 to +150		

Note 1: Pulse test with $PW=300\mu\text{s}$, 1% duty cycle

Note 2: Reverse recovery test condition: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

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EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DE
RS1MLS RVG	RS1MLS		RV	G	Gre
RS1MLSHRVG	RS1MLS	H	RV	G	AEC- Gre

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

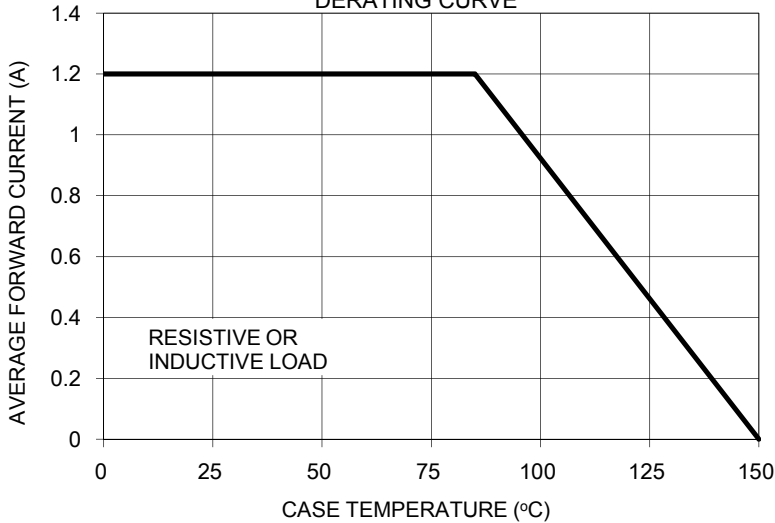


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

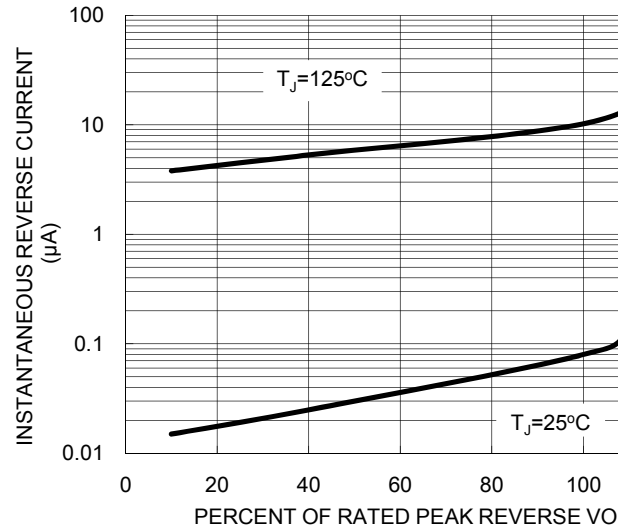


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

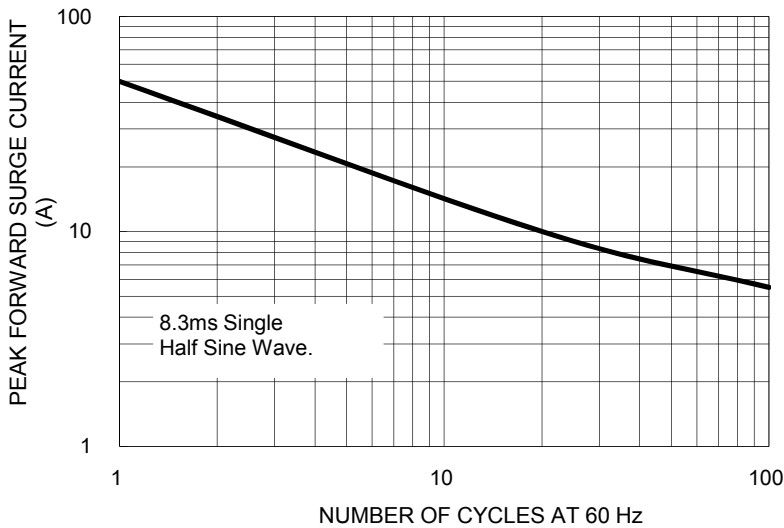
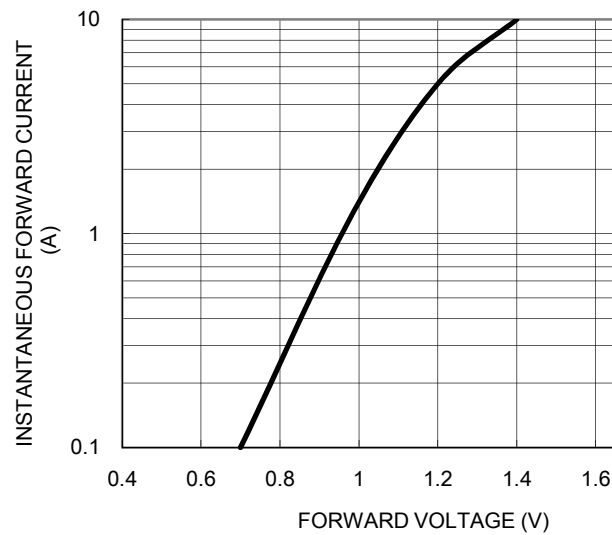
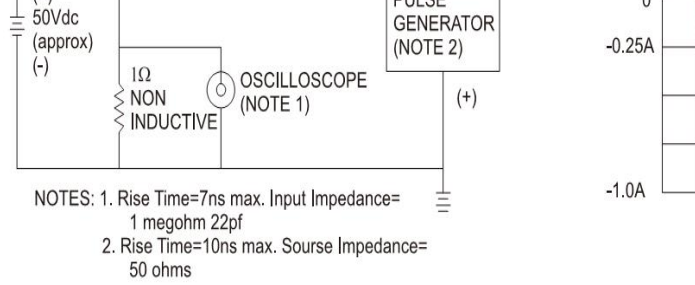
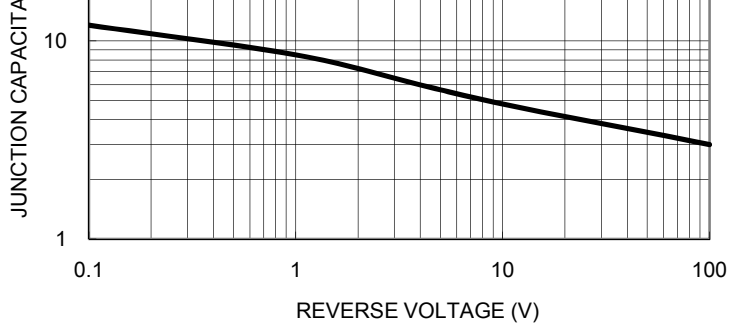


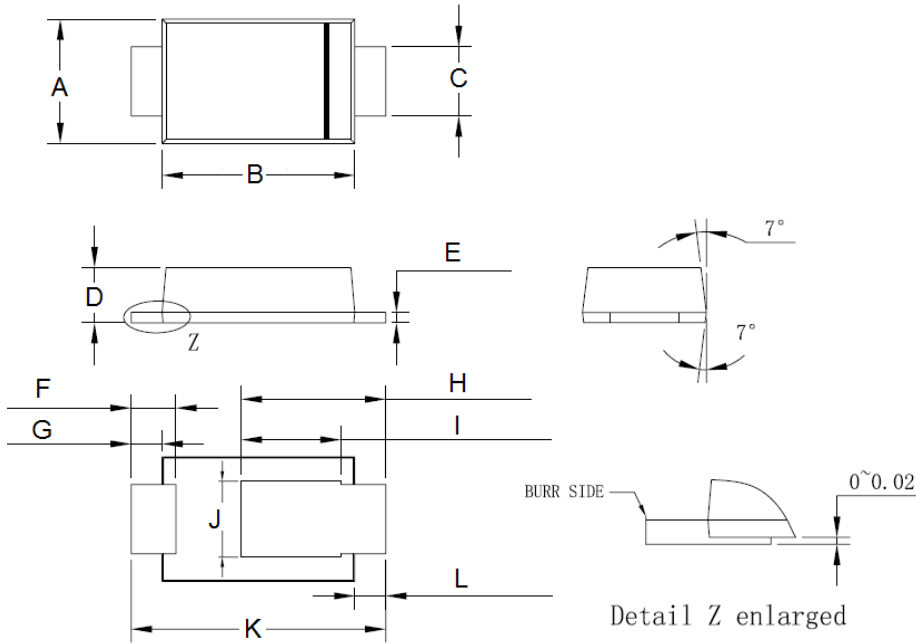
FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS





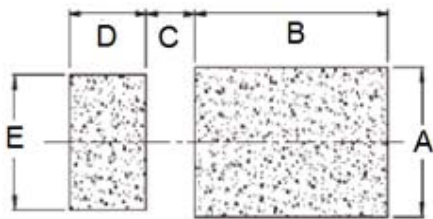
PACKAGE OUTLINE DIMENSIONS

SOD123HE



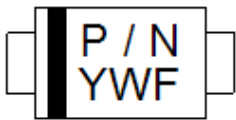
DIM.	Unit (mm)		Unit (in)
	Min	Max	Min
A	1.65	1.95	0.065
B	2.60	3.00	0.102
C	0.85	1.15	0.033
D	0.75	0.85	0.030
E	0.10	0.20	0.004
F	0.55	0.75	0.022
G	0.35	0.55	0.014
H	1.90	2.30	0.075
I	1.35	1.55	0.053
J	0.95	1.25	0.037
K	3.50	3.90	0.138
L	0.35	0.55	0.014

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	1.40	0.055
B	2.40	0.094
C	0.70	0.028
D	0.90	0.035
E	1.40	0.055

MARKING DIAGRAM



P/N = Marking Code
YW = Date Code
F = Factory Code

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