SD34

Surface Mount High Current Density Schottky Rectifiers 3.0 Amp 40V

Features

- Guarding protection
- Low forward voltage
- Reverse energy tested
- High current capability
- Extremely low thermal resistance
- RoHS compliant package

Mechanical Data

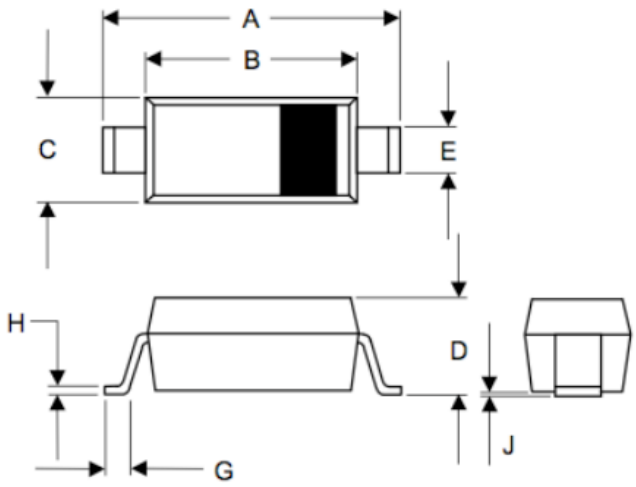
- Case: SOD-123 Molded plastic
- Epoxy: UL94V-O rate flame retardant
- Lead: Lead Formed for Surface Mount
- Polarity: Color band denotes cathode end
- Mounting position: Any

Packing & Order Information

3,000/Reel

RoHS
COMPLIANT

SOD123



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

Graphic symbol

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)

Parameter	Symbol	SD34	Unit
Maximum repetitive peak reverse voltage	VRRM	40	V
Working peak reverse voltage	VRWM	28	V
Maximum DC blocking voltage	VDC	40	V
Maximum average forward rectified current	IF(AV)	3.0	A
Operating junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

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Maximum Ratings (Tc=25°C unless otherwise noted)			
Parameter	Symbol	SD34	Unit
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	50	A
1pulse/4S t=500us exponent wave		180	

Note:

(1) Mounted on 30 mm x 30 mm Al P.C.B. with 50 mm x 25 mm x 100 mm fin heat sink

(2) Free air, mounted on recommended copper pad area

Electrical characteristics (Tc=25°C unless otherwise noted)				
Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=1A, Tj=25°C at IF=3A, Tj=25°C	VF	0.38 0.53	 0.6	V
Maximum reverse current per leg Tj=25°C	IR	200		u'A
at working peak reverse voltage Tj=100°C		10		m'A
Junction Capacitance	CJ	120		pF

Thermal characteristics (Tc=25°C unless otherwise noted)			
Parameter	Symbol	Value	Unit
Typical thermal resistance	RθJA	42	°C/W

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

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■RATINGS AND CHARACTERISTIC CURVES

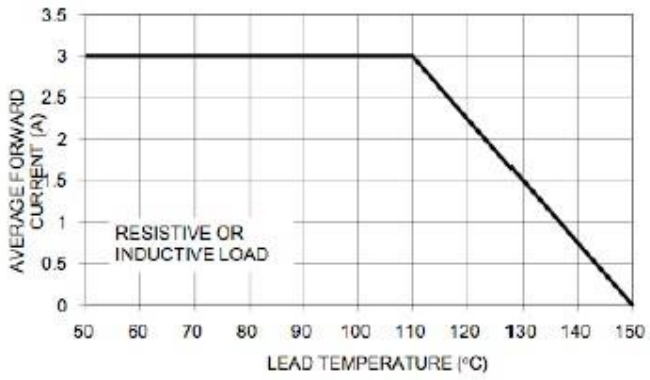

FIG. 1- FORWARD CURRENT DERATING CURVE

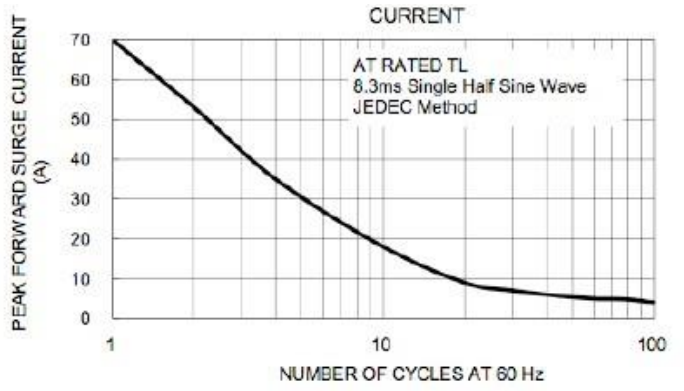

FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

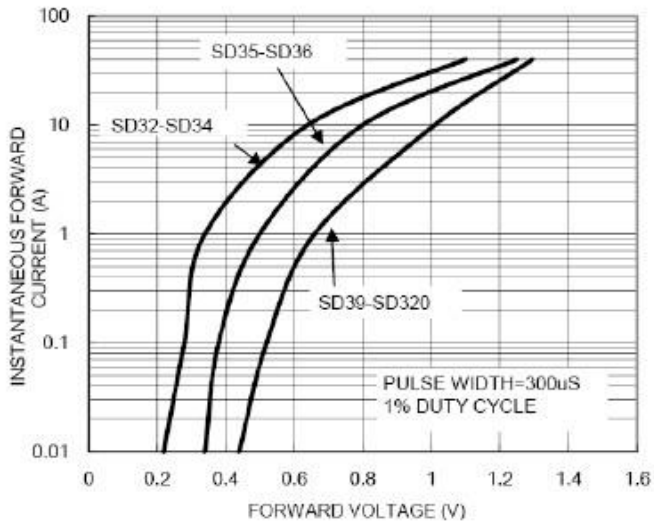

FIG. 3- TYPICAL FORWARD CHARACTERISTICS

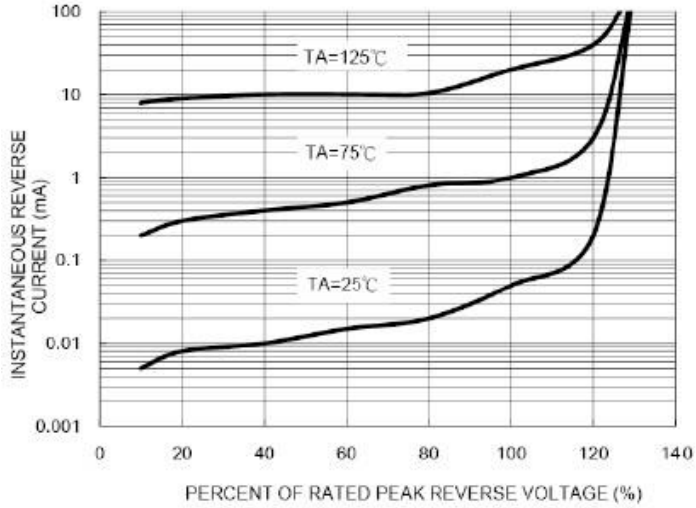

FIG. 4- TYPICAL REVERSE CHARACTERISTICS

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