

SD3U60ST

Product profile

Surface Mount High Current Density Schottky

General description

Rectifiers 3.0 Amp 60V

Features

Guarding protection

Low forward voltage

Reverse energy tested

High current capability

Extremely low thermal resistance

Mechanical data

Case: SOD-123 Molded plastic

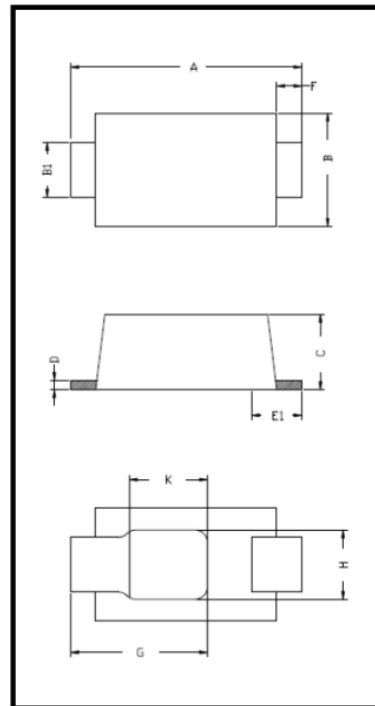
Epoxy: UL94V-O rate flame retardant

Lead: Lead Formed for Surface Mount

Polarity: Color band denotes cathode end

Mounting position: Any

Dimension	Millimeters	
	Min	Max
A	3.55	3.85
B	1.60	2.00
B1	0.80	1.00
C	0.85	0.95
D	0.12	0.20
E1	0.60	1.00
F	0.20	0.60
K	1.05	1.45
H	0.90	1.30
G	2.05	2.45



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

Parameter	Symbol	SD3U60ST	Unit
Maximum repetitive peak reverse voltage	VRRM	60	V
RMS Voltage (Max.)	VRMS	42	V
Working peak reverse voltage	VRWM	60	V
Maximum average forward rectified current	IF(AV)	3.0	A
Peak forward surge current	IFSM	45	A
8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		250	
1pulse/4S t=500us exponent wave			
Operating junction temperature range	TJ	-55 to +125	°C
Storage temperature range	TSTG	-55 to +150	°C

THERMAL CHARACTERISTICS

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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Electrical characteristics (Tc=25°C unless otherwise noted)

OFF CHARACTERISTICS

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=3A, Tj=25°C	VF	0.47	0.51	V
Maximum reverse current Tj=25°C	IR	100		u'A
at working peak reverse voltage Tj=125°C		10		m'A

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■ Characteristic Curves

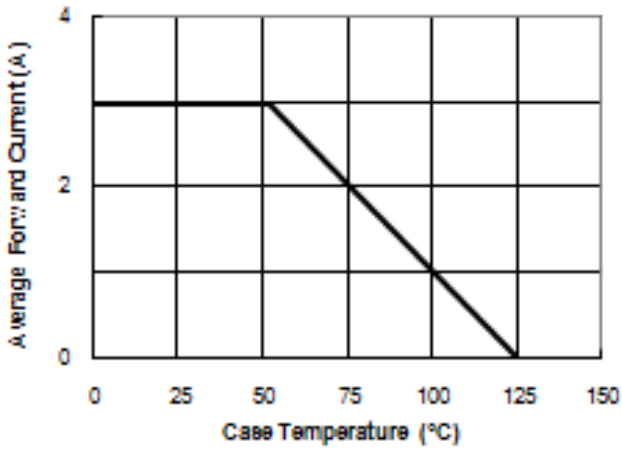


Figure 1. Forward Current Derating Curve

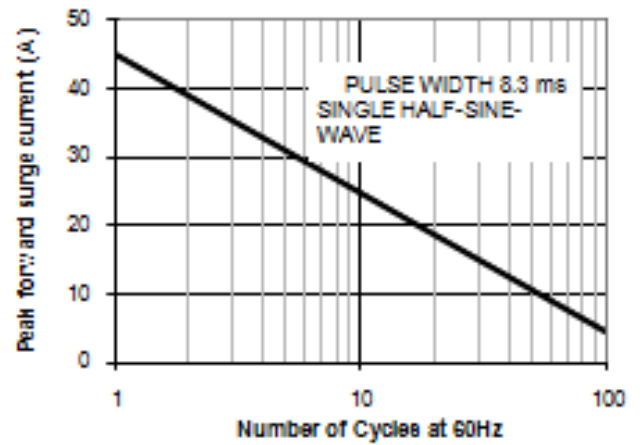


Figure 2. Maximum NON-Repetitive Surge

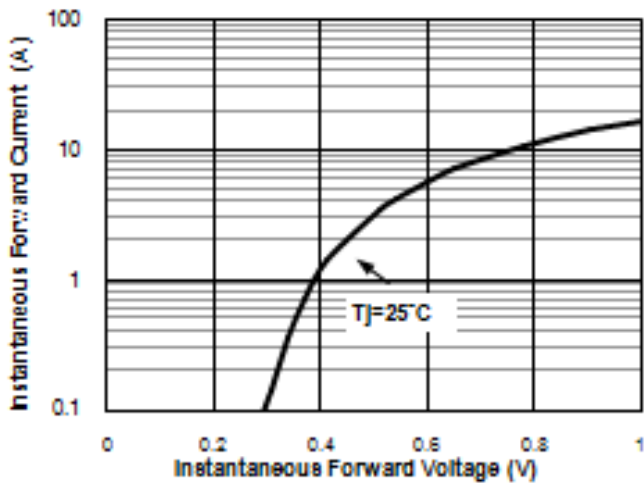


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

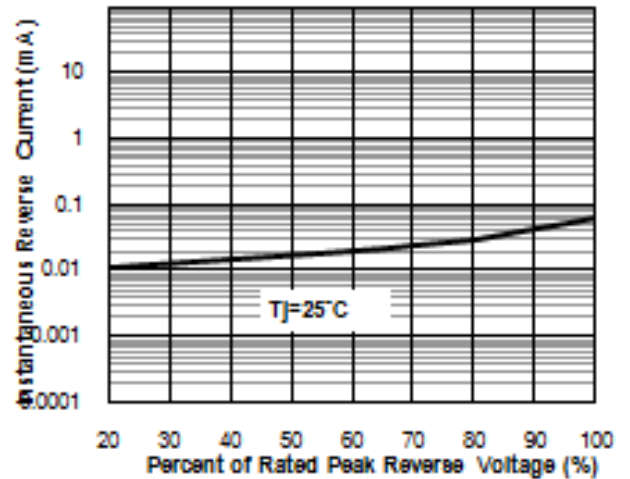


Figure 4. Typical Reverse Characteristics

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