Surface Mount High Current Density Schottky Rectifiers 3.0 Amp 40V

SD34

FEATURES

Guarding protection

Low forward voltage

Reverse energy tested

High current capability

Extremely low thermal resistance

MECHANICAL DATA

Case: SOD-123 Molded plastic

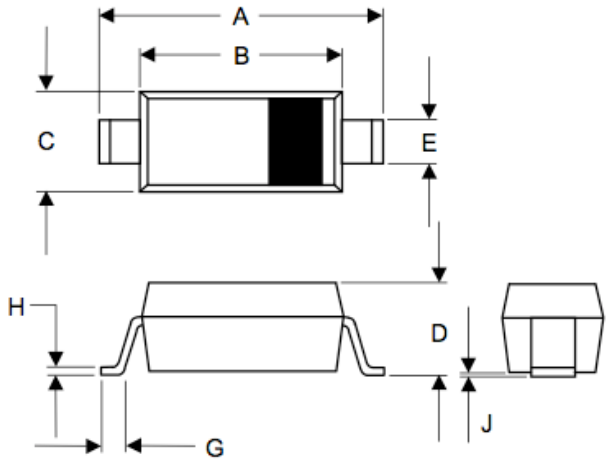
Epoxy: UL94V-O rate flame retardant

Lead: Lead Formed for Surface Mount

Polarity: Color band denotes cathode end

Mounting position: Any

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	

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
RMS Voltage (Max.)	VRMS	28	V
Working peak reverse voltage	VRWM	40	V
Maximum average forward rectified current	IF(AV)	3.0	A
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	
Operating junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

Electrical characteristics (Tc=25°C unless otherwise noted)				
Parameter	**Symbol**	**Value**		**Unit**
		Typical	**Max**	
Instantaneous forward voltage at IF=1A, Tj=25°C	VF	0.38		V
at IF=3A, Tj=25°C		0.53	0.6	
Maximum reverse current 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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 FORWARD CURRENT DERATING CURVE

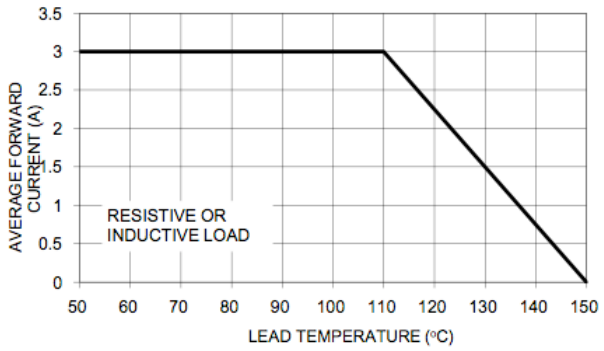


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

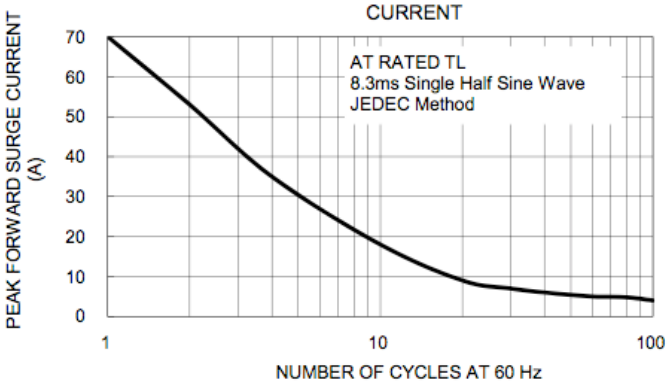


FIG. 3 TYPICAL FORWARD CHARACTERISRICS

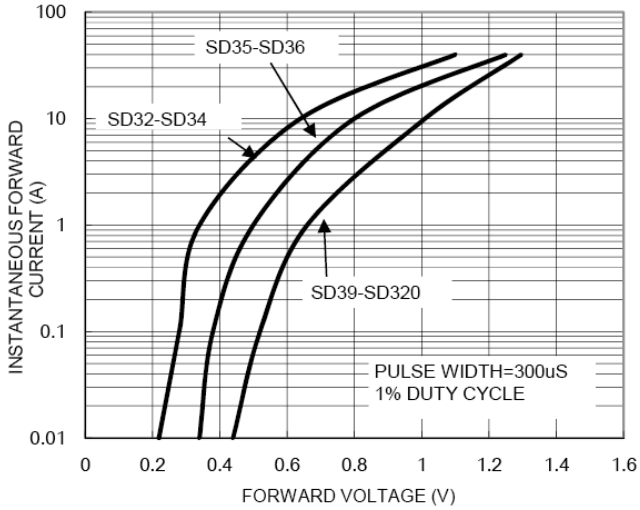


FIG. 4 TYPICAL REVERSE CHARACTERISTICS