Surface Mount Schottky Barrier Rectifier

Parameter	Value	Unit
V_{RRM}	20~200	V
$I_{F(AV)}$	3.0	A

SOD-123FL

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability

Applications

- For use in low-voltage, high-frequency inverters, free-wheeling applications, DC/DC converters, and polarity protection circuits.

Absolute Maximum Ratings and Characteristics (at TJ = 25℃ unless otherwise specified)

Parameter	Symbol	SS32L	SS34L	SS36L	SS38L	SS310L	SS312L	SS315L	SS320L	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current ,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80								A
Max Instantaneous Forward Voltage at 3A	V_F	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current Ta = 25℃ at Rated DC Reverse Voltage Ta = 100℃	I_R	0.5 10			0.3 5					mA
Typical Junction Capacitance（1）	C_j	250		160						pF
Typical Thermal Resistance（2）	$R_{\theta JA}$	80								℃/W
Operating Junction Temperature Range	T_j	-55 ~ +125		-55 ~ +150						℃
Storage Temperature Range	T_{stg}	-55 ~ +150								℃

Notes：

（1）Measured at 1 MHz and applied reverse voltage of 4 V D.C

（2）P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical characteristics

Fig.1 Forward Current Derating Curve

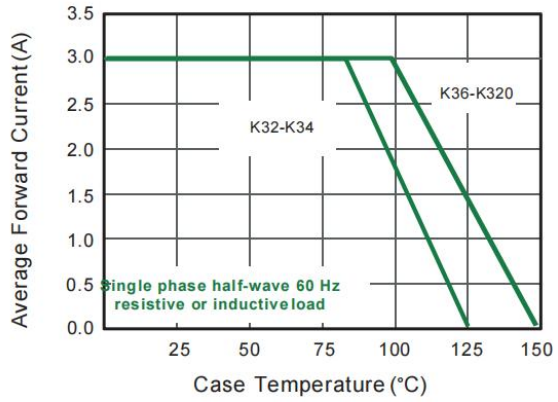


Fig.2 Typical Reverse Characteristics

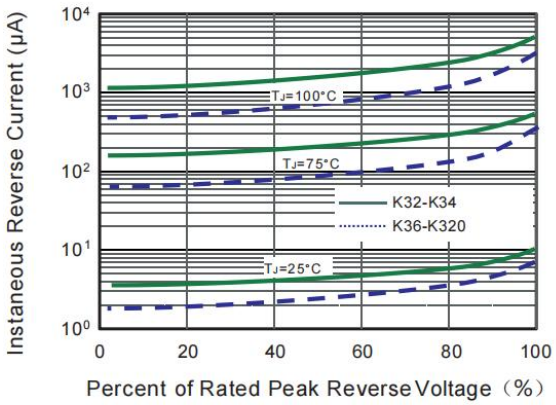


Fig.3 Typical Forward Characteristic

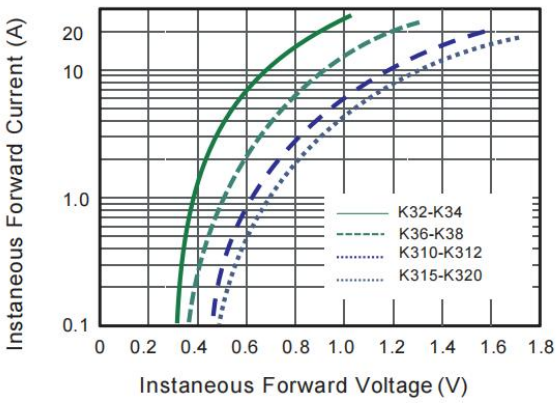


Fig.4 Typical Junction Capacitance

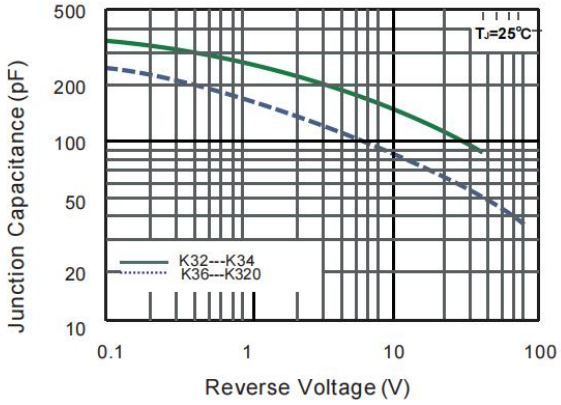


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

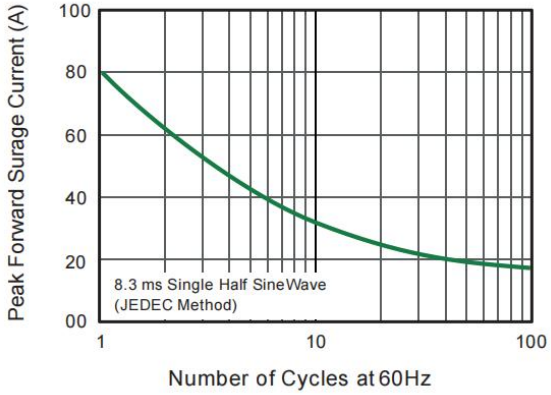
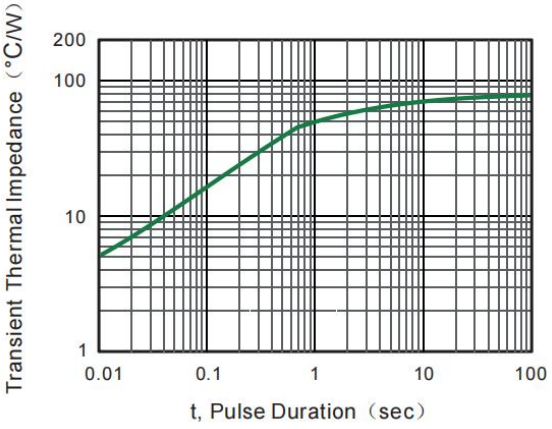


Fig.6- Typical Transient Thermal Impedance



Package outlines

Plastic surface mounted package; 2 leads

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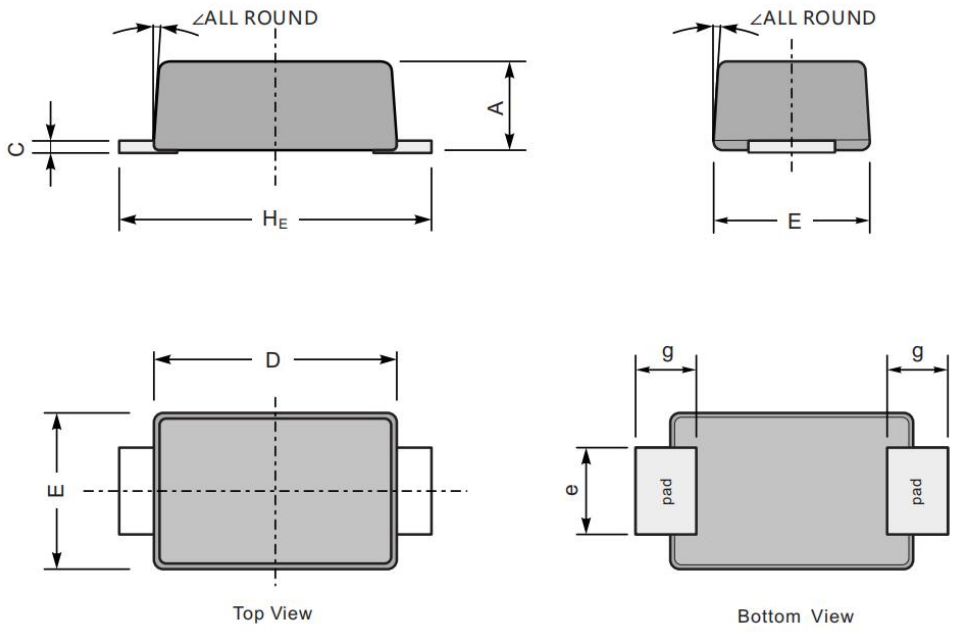
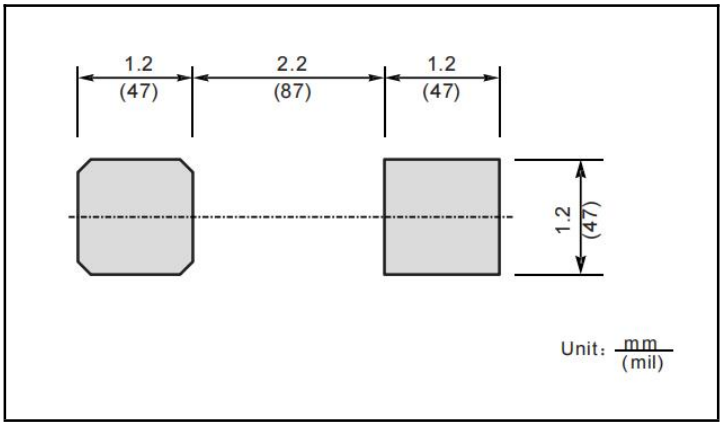


UNIT		A	C	D	E	e	g	B	∠
mm	max	1.15	0.20	2.8	2.0	1.2	0.9	3.8	5°
	min	0.95	0.12	2.5	1.7	0.9	0.7	3.5	
mil	max	45	7.9	110	78.7	47	35	150	
	min	37	4.7	98	67	35	28	138	

The recommended mounting pad size



Marking

Type number	Marking code
SS32L	K32
SS34L	K34
SS36L	K36
SS38L	K38
SS310L	K310
SS312L	K312
SS315L	K315
SS320L	K320

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