

SuperSchottky – 3A, 20~200V Schottky Barrier Rectifiers



1. Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 260°C/10 seconds at terminals

2. Mechanical Data

- Case: Molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbol marking on body
- Mounting Position: Any
- Weight: 0.0007 ounce, 0.02 grams

3. Marking and Circuit

Marking	Circuit
	

4. Specification

Absolute Maximum Rating & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load.

Parameters	Symbol	K32	K34	K36	K38	K310	K315	K320	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	150	200	V
Average Rectified Output Current at $T_L=100^{\circ}C$	$I_{F(AV)}$	3.0							A
Non-Repetitive Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	70							A
Maximum instantaneous forward voltage at 3.0A	V_F	0.55	0.70	0.85	0.95				V
Maximum DC reverse current at rated	I_R	$T_J=25^{\circ}C$			0.05			10	mA
DC blocking voltage		$T_J=125^{\circ}C$			50				
Typical thermal resistance	$R_{\theta JA}$	85							°C/W
Operating junction temperature range	T_J	-55 TO +125			-55 TO +150			°C	
Storage temperature range	T_{STG}	-55 TO +150							°C

5. Typical Characteristic

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

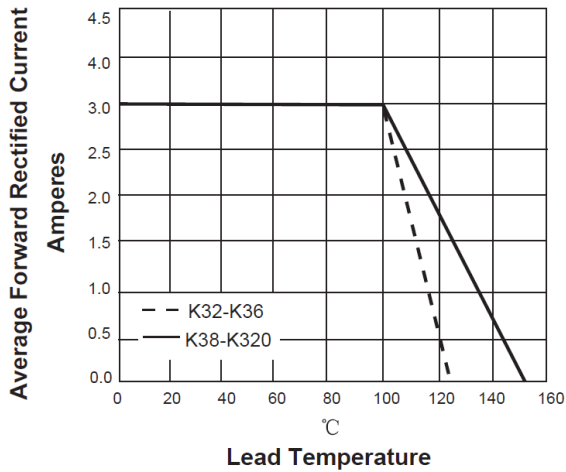


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

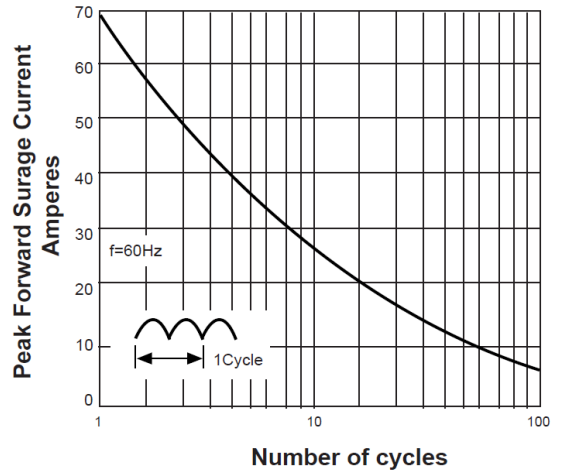


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

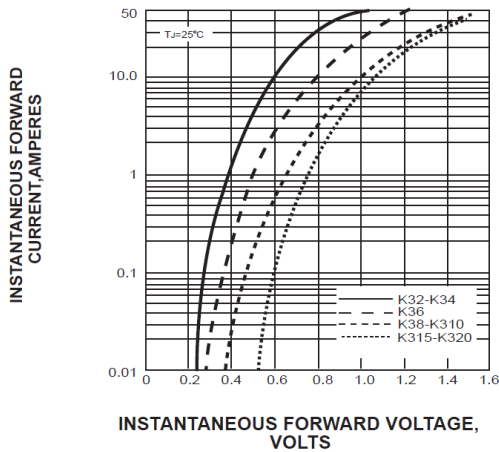
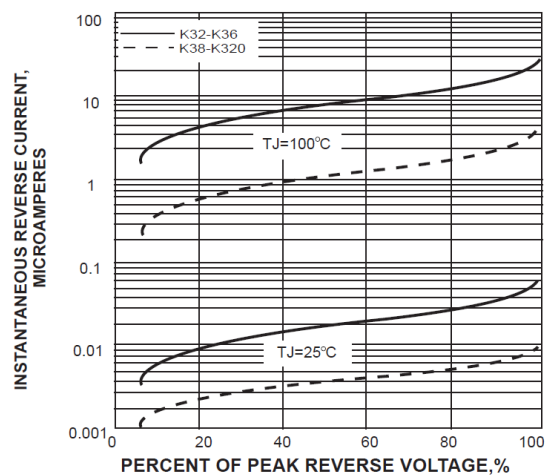
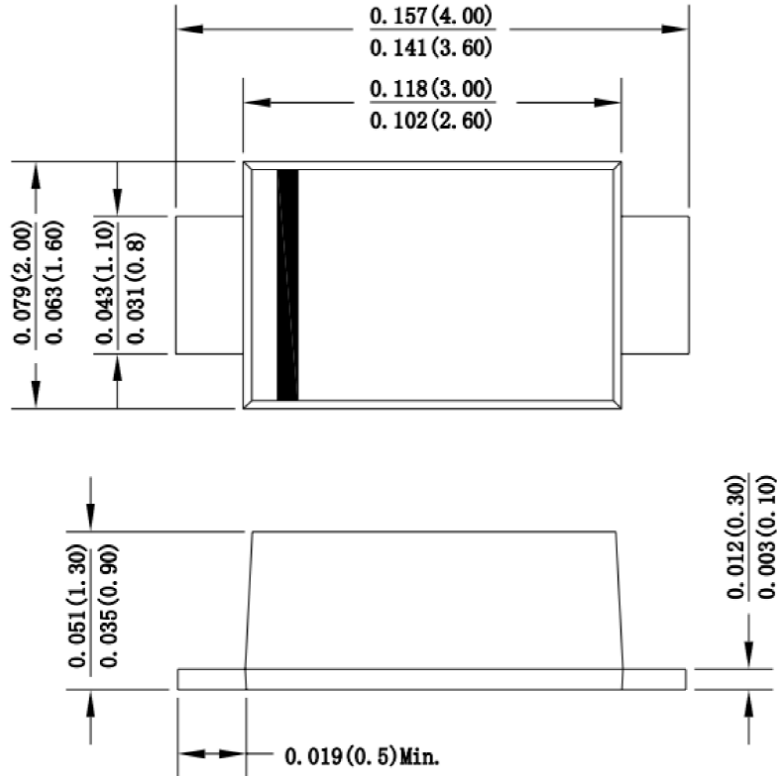


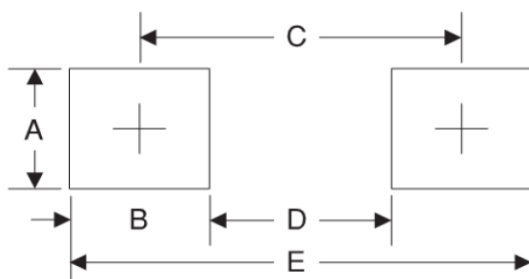
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



6. Dimension (SOD123FL)



Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.20	0.048
B	1.15	0.045
C	3.10	0.122
D	1.95	0.077
E	4.25	0.167

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