

K32 THRU K320



3.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

FEATURES

- * The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- * Idea for printed circuit board
- * Glass passivated Junction chip
- * Low reverse leakage
- * High forward surge current capability
- * High temperature soldering guaranteed 250°C/10 seconds at terminals

MECHANICAL DATA

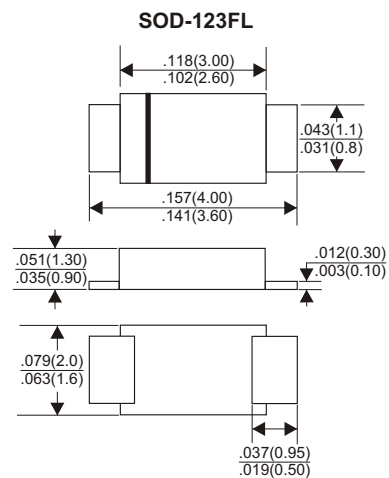
- * **Case:** SOD-123FL, molded plastic
- * **Terminals:** plated leads solderable per MIL-STD-750, Method 2026
- * **Polarity:** Polarity symbol marking on body
- * **Mounting position:** Any

VOLTAGE RANGE

20 to 200 Volts

CURRENT

3.0 Amperes



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	K32	K34	K36	K38	K310	K315	K320	UNITS
Maximum Recurrent Peak Reverse Voltage	20	40	60	80	100	150	200	V
Maximum RMS Voltage	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current at $T_L=100^\circ\text{C}$	3.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	70							A
Maximum Instantaneous Forward Voltage at 3.0A	0.55	0.70	0.85		0.95			V
Maximum DC Reverse Current $T_a=25^\circ\text{C}$	0.5			0.05				μA
at Rated DC Blocking Voltage $T_a=125^\circ\text{C}$	50			10				μA
Typical Thermal Resistance $R_{\theta\text{JA}}$	85							$^\circ\text{C/W}$
Operating Junction Temperature Range T_j	-55 — +125			-55 — +150				$^\circ\text{C}$
Storage Temperature Range T_{stg}	-55 — +150							$^\circ\text{C}$

RATING AND CHARACTERISTIC CURVES (K32 THRU K320)

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

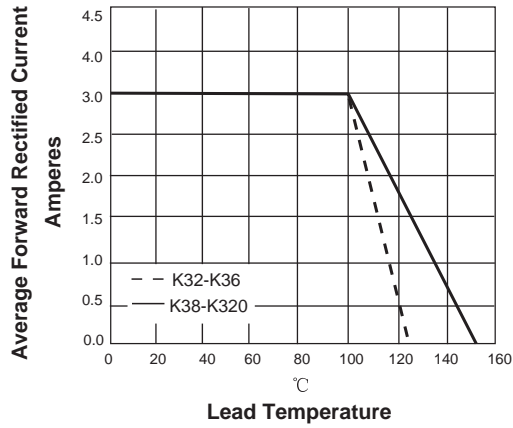


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

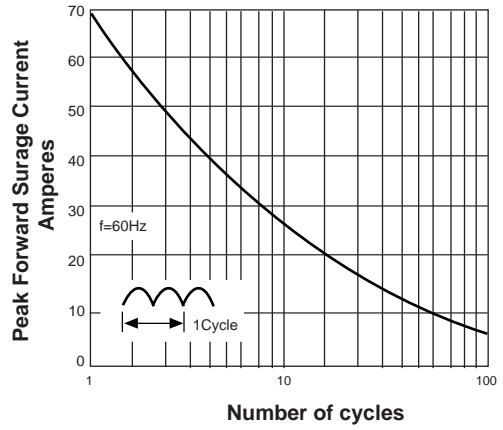


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

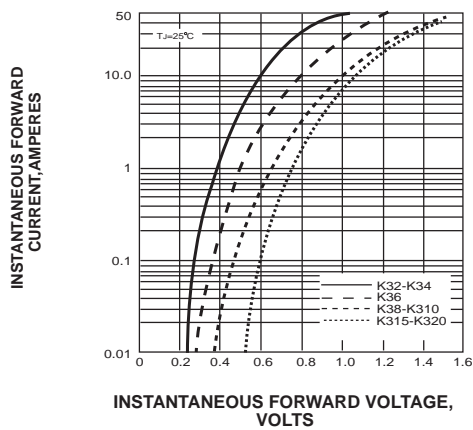
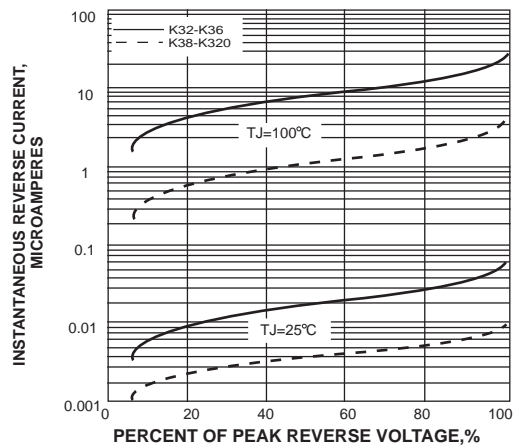
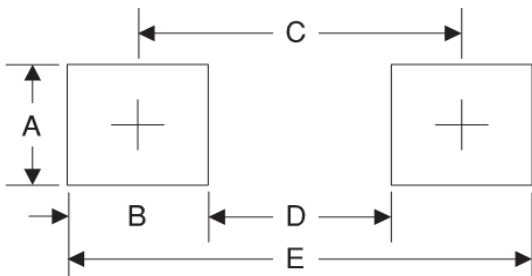


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.048
B	1.15	0.045
C	3.10	0.122
D	1.95	0.077
E	4.25	0.167