

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V

Forward Current – 3.0 A

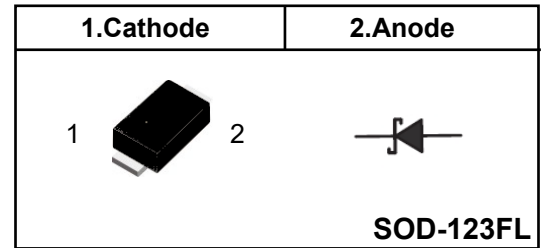
FEATURES

- ♦Metal silicon junction, majority carrier conduction
- ♦For surface mounted applications
- ♦Low power loss, high efficiency
- ♦High forward surge current capability
- ♦For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ♦Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ♦Case: SOD-123FL
- ♦Terminals: Solderable per MIL-STD-750, Method 2026
- ♦Approx. Weight: 15mg /0.00048oz

Pinning



Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 ° ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	K36				Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}		60			V
Maximum RMS voltage	V_{RMS}		42			V
Maximum DC Blocking Voltage	V_{DC}		60			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		70		A
Maximum Instantaneous Forward Voltage at 3 A	V_F		0.70			V
Maximum Instantaneous Reverse Current $T_A = 25^{\circ}C$ at Rated DC Reverse Voltage $T_A = 100^{\circ}C$	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			°C/W
Operating Junction Temperature Range	T_j		-55 ~ +150			°C
Storage Temperature Range	T_{stg}		-55 ~ +150			°C

(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.

Fig.1 Forward Current Derating Curve

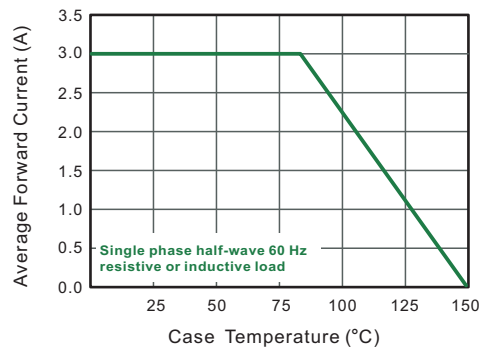


Fig.2 Typical Reverse Characteristics

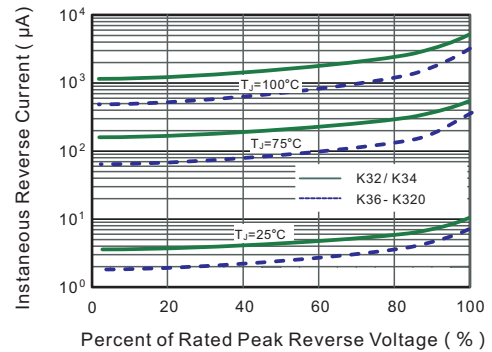


Fig.3 Typical Forward Characteristic

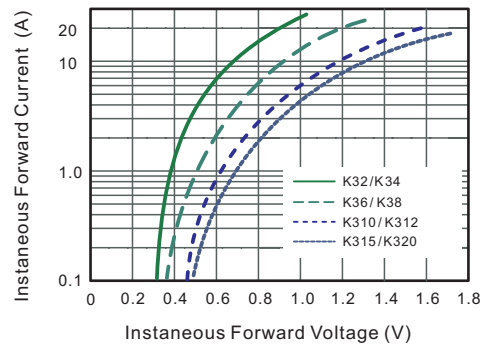


Fig.4 Typical Junction Capacitance

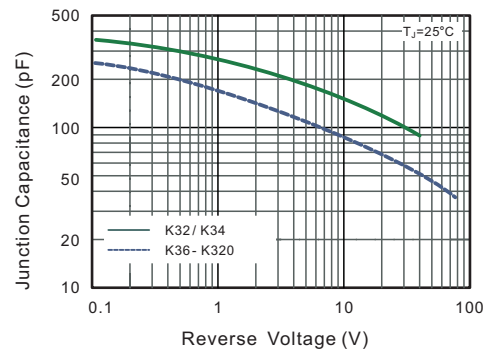


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

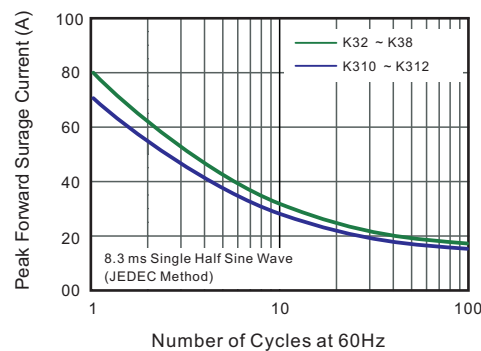
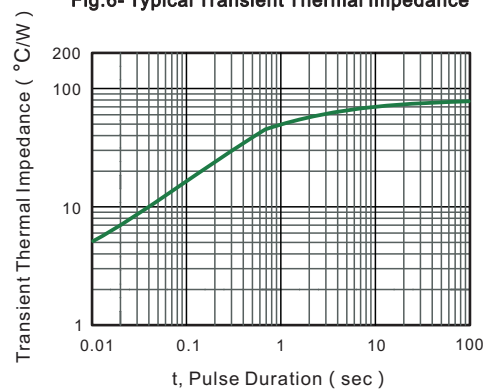
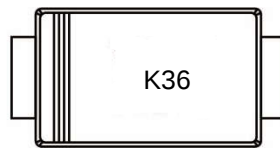


Fig.6- Typical Transient Thermal Impedance



Marking Diagram



Ordering information

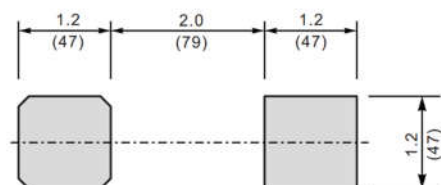
Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-123FL

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	43
C	0.12	0.20	4.7	7.9
D	2.6	2.9	102	114
E	1.7	1.9	67	75
e	0.8	1.1	31	43
g	0.7	0.9	28	35
HE	3.5	3.8	138	150
∠	7°			

The recommended mounting pad size


Unit: $\frac{\text{mm}}{(\text{mil})}$