

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 20 to 200 VOLTS

FORWARD CURRENT: 1.0 AMPERE

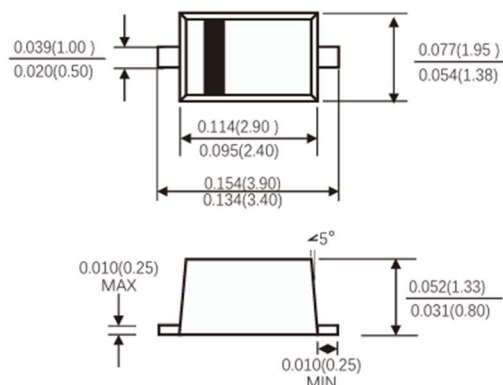
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- High temperature soldering guaranteed:
260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

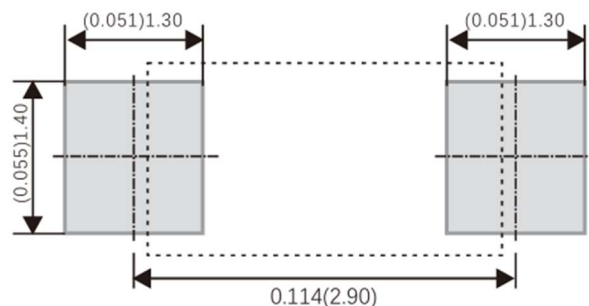
Mechanical Data

- Case: SOD-123FL molded plastic body
- Lead Finish: 100% Matte Sn (Tin)
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Tape Reel: 3000pcs

SOD-123FL



Suggested PAD Layout



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameters / Marking Code	Symbols	K12	K13	K14	K16	K1A	K1B	K1D	Units
Maximum repetitive peak reverse voltage	VRRM	20	30	40	60	100	150	200	Volts
Maximum RMS voltage	VRMS	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage	VDC	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current (See Fig. 1)	I(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	40.0							Amps
Maximum instantaneous forward voltage at 1.0 A (note 1)	VF	0.55		0.75	0.85	0.90	0.95	Volts	
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)	T _J =25°C	100				20			μA
	T _J =100°C	5.0				-			mA
	T _J =125°C	-				3.0			
Typical thermal resistance (Note 2)	Junction-Ambient	125							°C/W
	Junction-Mount	26							
Operating junction temperature range	T _J	-55 to +150							°C
Storage temperature range	T _{STG}	-55 to +150							°C

NOTES:

1. Pulse test: 300μs pulse width, 1% duty cycle
2. Mounted on 1 inch square pad size (1 x 0.5 inch for each lead) on 2 oz FR4 board

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

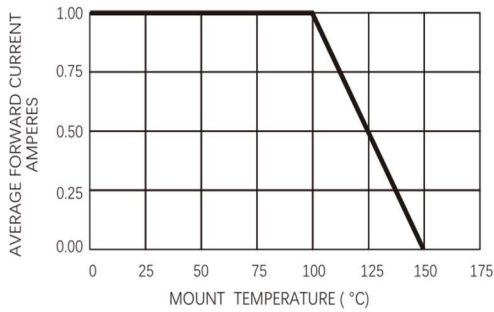


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

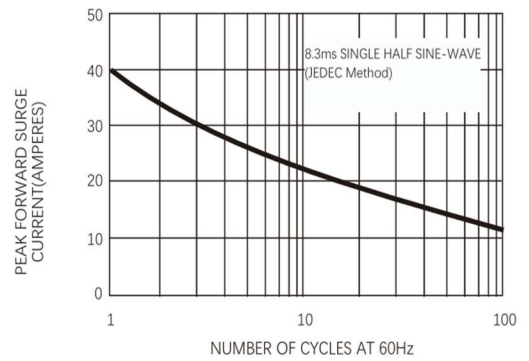


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

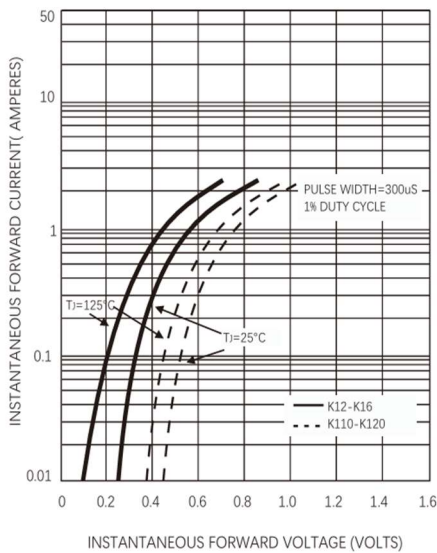


FIG.4-TYPICAL REVERSE CHARACTERISTICS

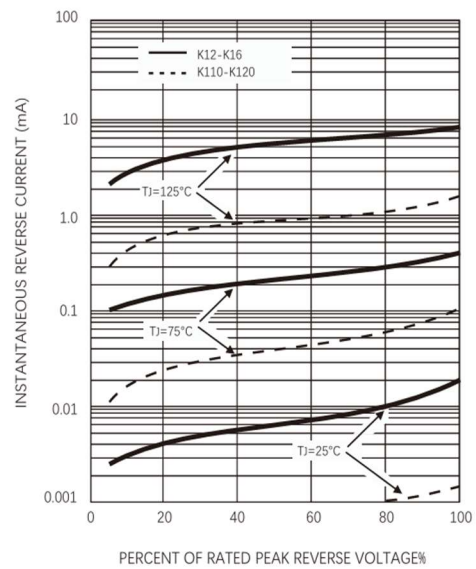


FIG.5-TYPICAL JUNCTION CAPACITANCE

