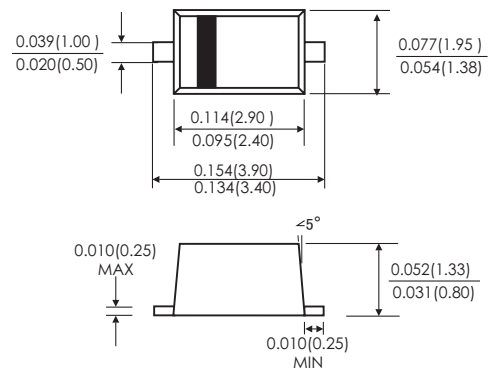


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 °C/10 seconds at terminals, 0.375"(9.5mm)lead length,5lbs.(2.3kg)tension



SOD-123FL



MECHANICAL DATA

- Case: SOD-123FL molded plastic body
- Lead Finish: 100% Matte Sn (Tin)
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 11.7 mg(approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

		Symbols	K12	K13	K14	K16	K1A	K1B	K1D	Volts
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 at1.0 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)	TA=25°C	IR	100				20			µA
	TA=100°C		5				–			mA
	TA=125°C		–				3			
Typical thermal resistance (Note 2)		RθJA RθJL	170 55.0							°C/W
Operating junction temperature range		TJ	-55 to+150							°C
Storage temperature range		TSTG	-55 to+150							°C

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2. P.C.B. mounted with 0.2 X 0.2"(5.0 X 5.0mm)copper pad areas

RATINGS AND CHARACTERISTIC CURVES K12 THRU K1D

FIG.1-FORWARD CURRENT DERATING CURVE

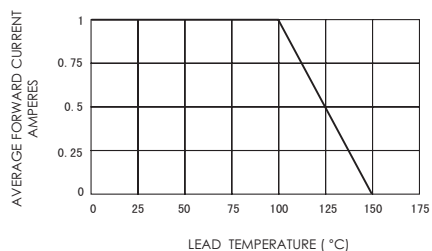


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

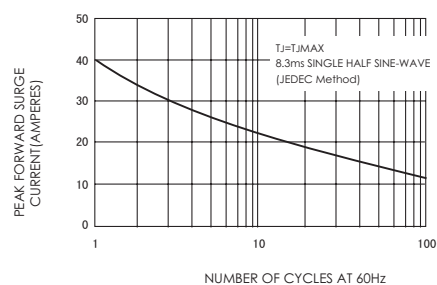


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

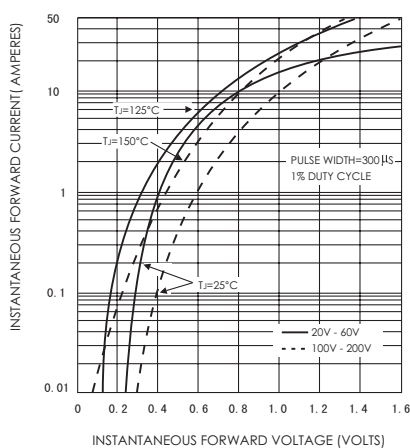


FIG.4-TYPICAL REVERSE CHARACTERISTICS

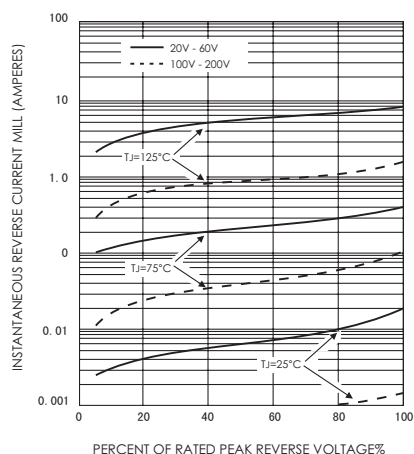


FIG.5-TYPICAL JUNCTION CAPACITANCE

