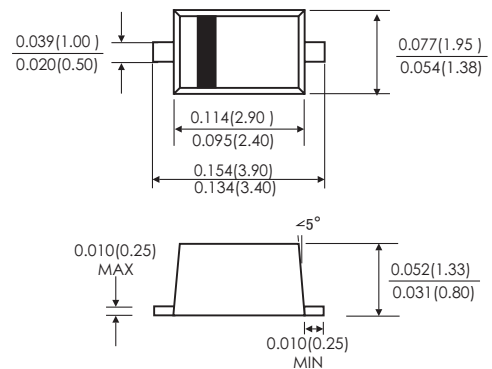


FEATURES

- 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



Dimensions in inches and (millimeters)

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	V_{RRM}	20	30	40	60	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage	V_{DC}	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)	I_{FSM}	40.0							Amps
Maximum instantaneous forward voltage at 1.0 A(note 1)	V_F	0.55		0.75	0.85	0.90	0.95		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$T_A=25^\circ\text{C}$	100				20			μA
	$T_A=100^\circ\text{C}$	5				-			mA
	$T_A=125^\circ\text{C}$	-				3			
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	170 55.0							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to+150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to+150							$^\circ\text{C}$

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

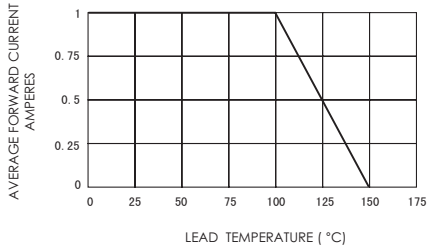


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

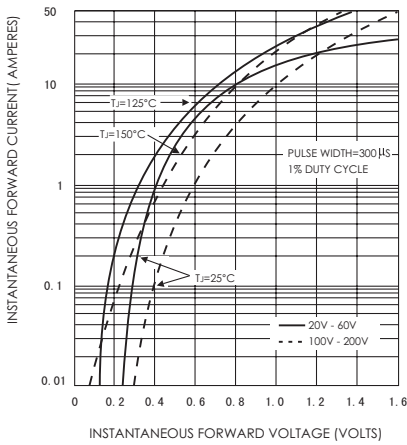


FIG.5-TYPICAL JUNCTION CAPACITANCE

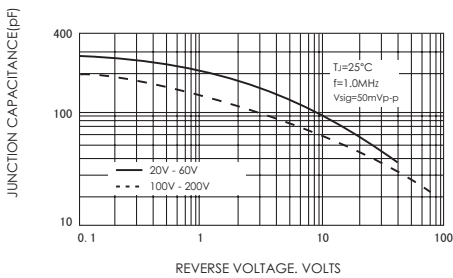


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

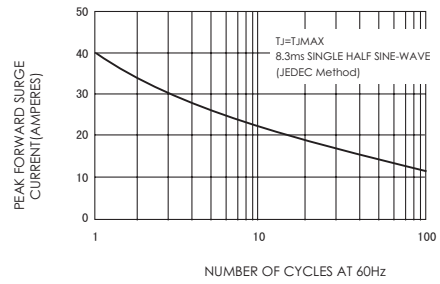


FIG.4-TYPICAL REVERSE CHARACTERISTICS

