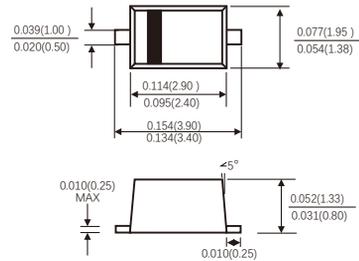


### FEATURES

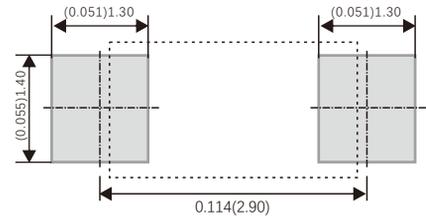
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guardring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 °C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



### SOD-123FL



### Suggested PAD Layout



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	K22	K23	K24	K26	K2A	K2B	K2D	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	I(AV)	2.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	50.0							Amps
Maximum instantaneous forward voltage at 2.0 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 <sub>J</sub> =25°C	100				20			μA
	T <sub>J</sub> =100°C	5.0				-			mA
	T <sub>J</sub> =125°C	-				3.0			
Typical thermal resistance (Note 2)	Junction-Ambient	RθJA	125.0						°C/W
	Junction-Mount	RθJM	21.0						
Operating junction temperature range	T <sub>J</sub>	-55 to+150							°C
Storage temperature range	TSTG	-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

FIG.1-FORWARD CURRENT DERATING CURVE

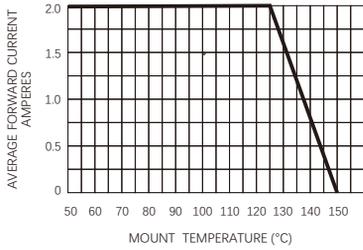


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

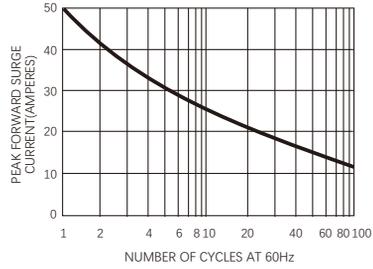


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

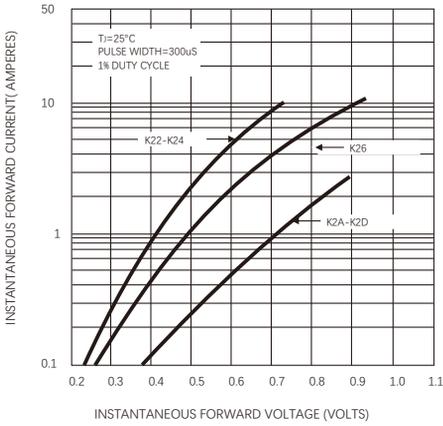


FIG.4-TYPICAL REVERSE CHARACTERISTICS

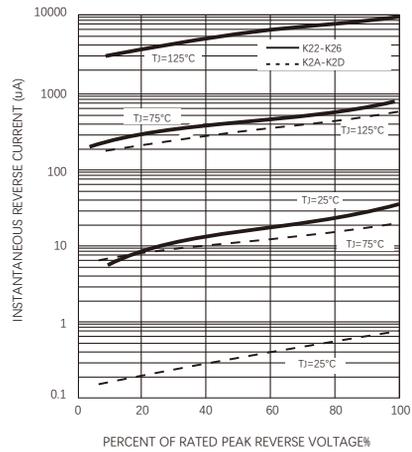
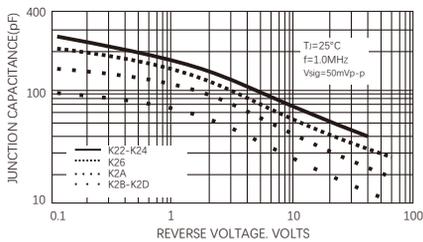


FIG.5-TYPICAL JUNCTION CAPACITANCE



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