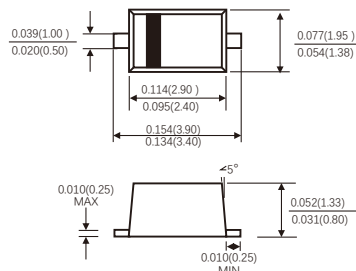


## FEATURES

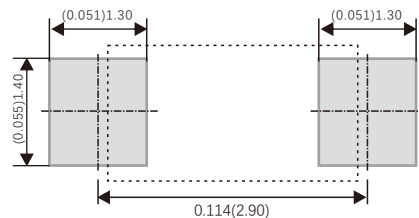
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guardring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,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



## 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

Dimensions in inches and (millimeters)

(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)	TJ=25°C	IR	100				20			μA
	TJ=100°C		5.0				-			mA
	TJ=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		TJ	-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

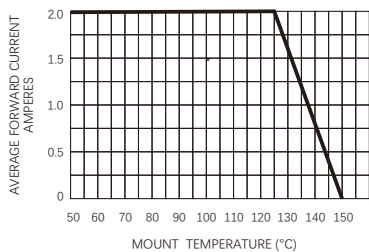


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

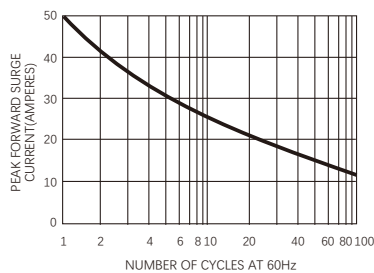


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

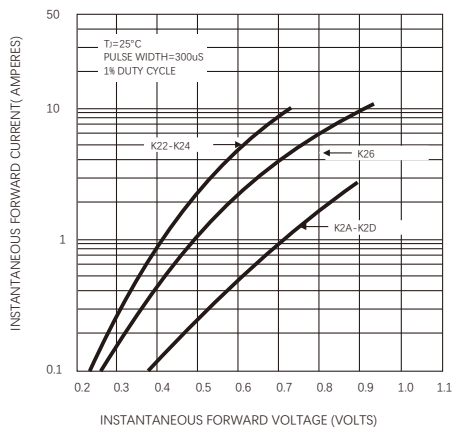


FIG.4-TYPICAL REVERSE CHARACTERISTICS

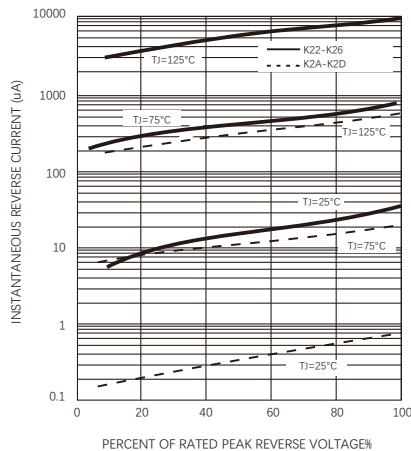
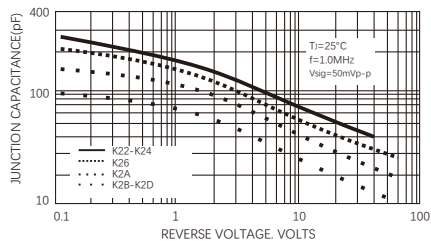


FIG.5-TYPICAL JUNCTION CAPACITANCE



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