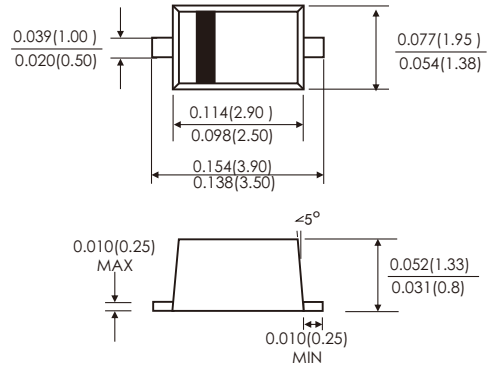


### FEATURES

- 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:250°C/10 seconds



### 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

### 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	$V_{RRM}$	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	$I_{(AV)}$	2.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50.0							Amps
Maximum instantaneous forward voltage at 2.0 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)	$T_A=25^{\circ}C$	100				20			$\mu A$
	$T_A=100^{\circ}C$	5.0				-			mA
	$T_A=125^{\circ}C$	-				3.0			
Typical thermal resistance(Note 2)	$R_{\theta JA}$	88.0							$^{\circ}C/W$
	$R_{\theta JL}$	28.0							
Operating junction temperature range	$T_J$	-55 to+150							$^{\circ}C$
Storage temperature range	$T_{STG}$	-55 to+150							$^{\circ}C$

- Notes: 1.Pulse test: 300  $\mu s$  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 K22 THRU K2D

FIG.1-FORWARD CURRENT DERATING CURVE

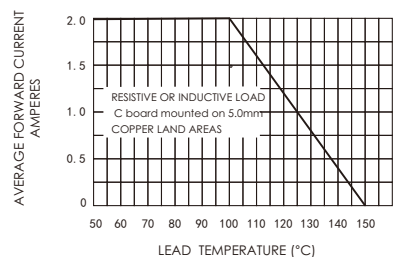


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

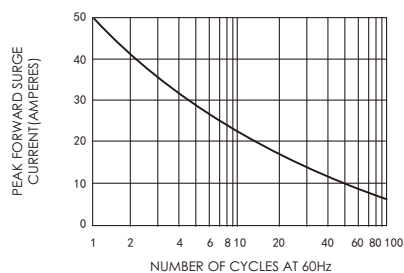


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

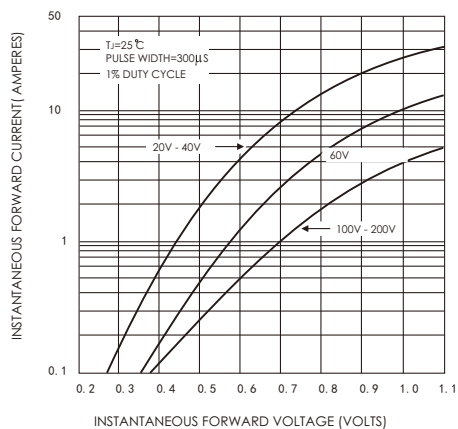


FIG.4-TYPICAL REVERSE CHARACTERISTICS

