SAMYANG ELECTRONICS

K12 --- K1D

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 20 --- 200 V
CURRENT: 1.0 A

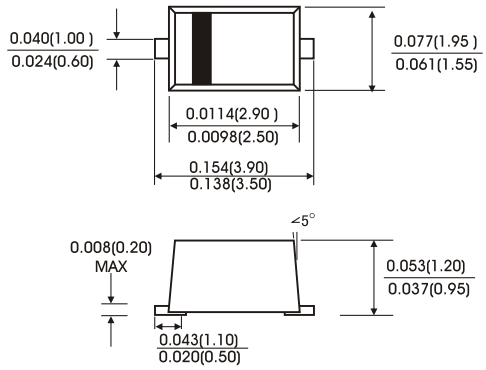
FEATURES

- 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 at terminals, 0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

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)

SOD-123FL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 C ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		SS1020FL	SS1030FL	SS1040FL	SS1050FL	SS1060FL	SS1080FL	SS10100FL	SS10150FL	SS10200FL	UNITS
	Symbols	K12	K13	K14	K15	K16	K18	K1A	K1B	K1D	Volts
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	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 at1.0 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°C	I_R	0.2									mA
T_A =100°C		10.0									
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	88.0 28.0									°C/W
Operating junction temperature range	T_J	-65 to+150									°C
Storage temperature range	T_{STG}	-65 to+150									°C

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to ambient.

FIG.1-FORWARD CURRENT DERATING CURVE

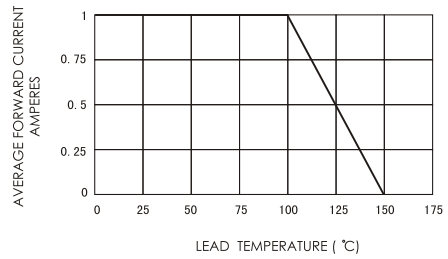


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

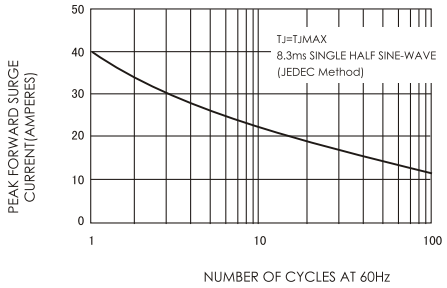


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

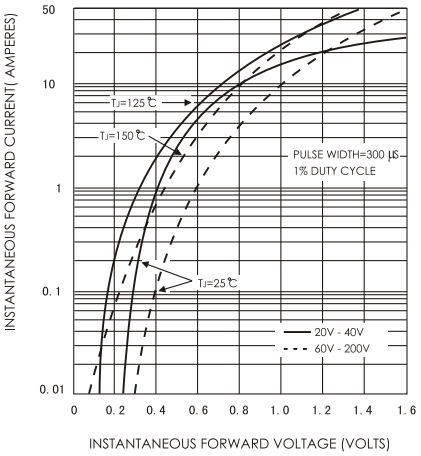


FIG.4-TYPICAL REVERSE CHARACTERISTICS

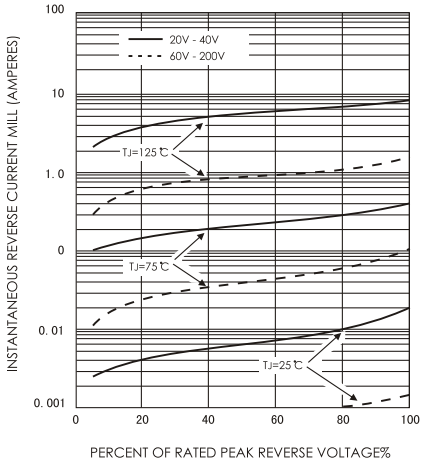


FIG.5-TYPICAL JUNCTION CAPACITANCE

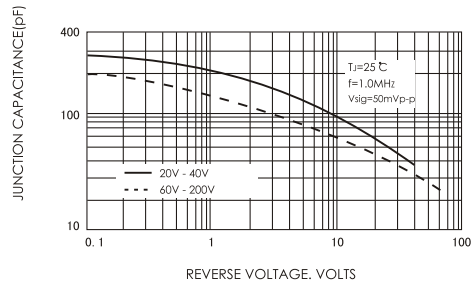


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

