SAMYANG ELECTRONICS

SS1020FL --- SS10200FL

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 20 --- 100 V
CURRENT: 1.0 A

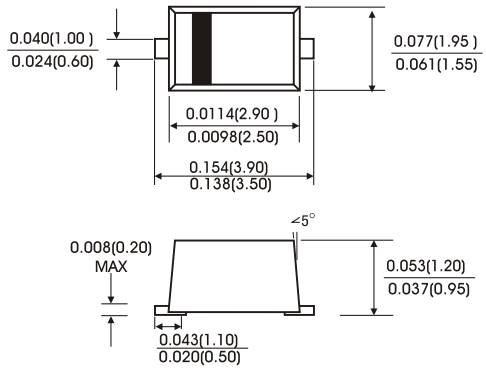
FEATURES

- 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%.

		SS 1020FL	SS 1030FL	SS 1040FL	SS 1050FL	SS 1060FL	SS 1080FL	SS 10AFL	SS 10150FL	SS 10200FL	
Device marking code		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

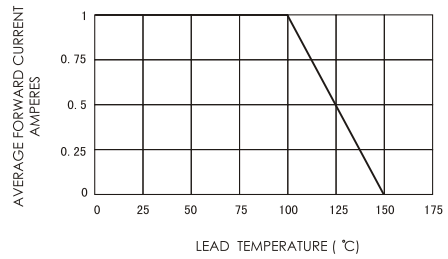


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

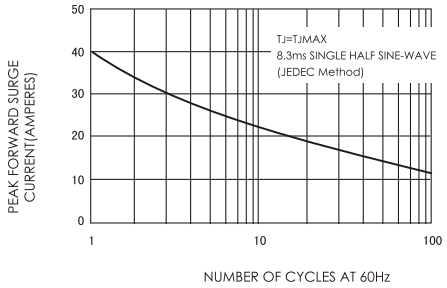


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

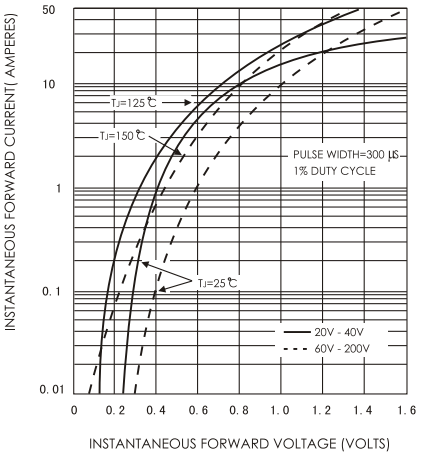


FIG.4-TYPICAL REVERSE CHARACTERISTICS

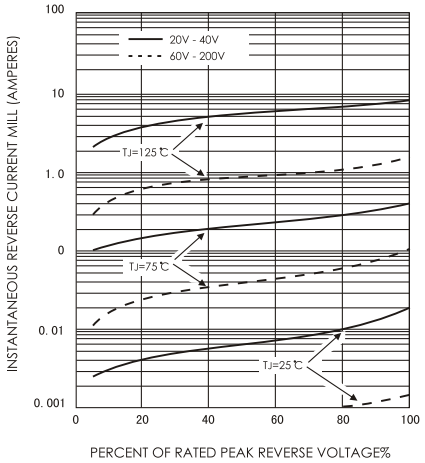


FIG.5-TYPICAL JUNCTION CAPACITANCE

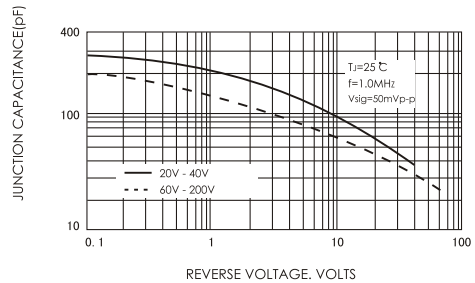


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

