

1SS13C1 THRU 1SS15C1

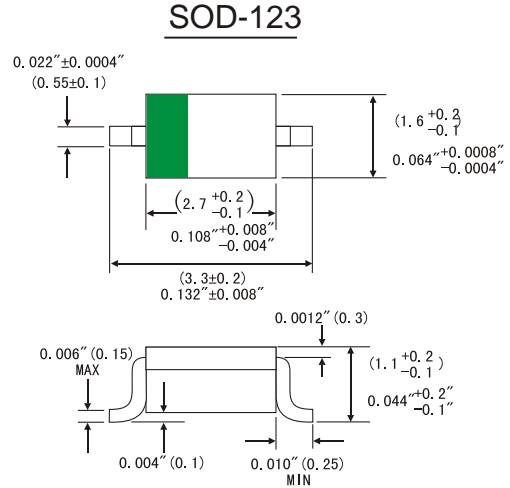
high speed low noise switching diode
Reverse Voltage - 20 to 40 Volts
Forward Current - 1.0Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- 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

MECHANICAL DATA

- Case: SOD-123 plastic case
- Weight: Approx. 0.01 gram



Dimensions in inches and (millimeters)

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	1SS13C1	1SS14C1	1SS15C1	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	Volts
Maximum non-repetitive peak reverse voltage	V_{RSM}	24	36	48	Volts
Maximum average forward rectified current 0.375"(9.5mm)lead length at $T_L=90^\circ C$	$I(AV)$	1.0			Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at $T_L=70^\circ C$	I_{FSM}	25.0			Amps
Maximum instantaneous forward voltage at 1.0 A(note 1)	V_F	0.600	0.650	0.700	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$T_A=25^\circ C$	0.05			mA
	$T_A=100^\circ C$	10			
Typical junction capacitance(Note 3)	C_J	5.0			pF
Typical thermal resistance(Note 2)	$R_{\theta JA}$	300			$^\circ C/W$
	$R_{\theta JL}$	210			
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +125			$^\circ C$

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle

2.Thermal resistance (from junction to ambient)Vertical PC.B. mounted , 0.5"(12.7mm)lead length

3.Measured at 1.0MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES 1SS13C1 THRU 1SS15C1

FIG.1-FORWARD CURRENT DERATING CURVE

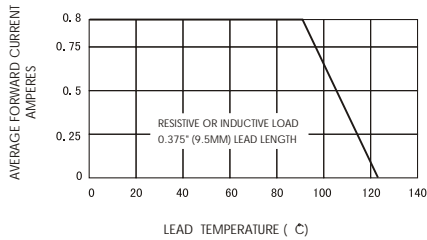


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

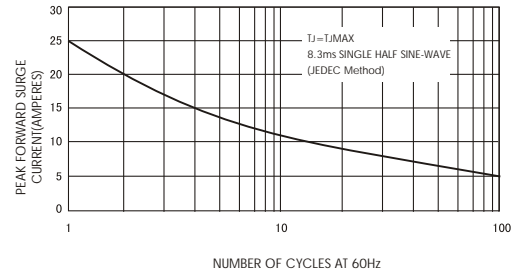


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

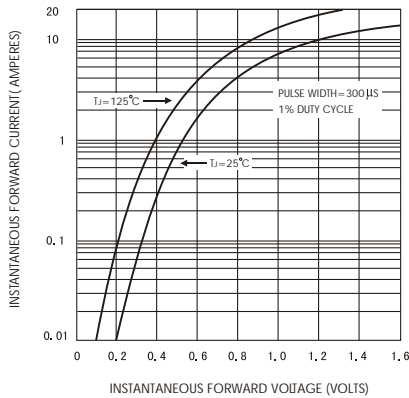


FIG.4-TYPICAL REVERSE CHARACTERISTICS

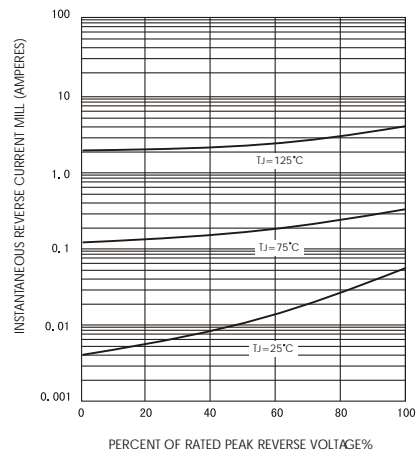


FIG.5-TYPICAL JUNCTION CAPACITANCE

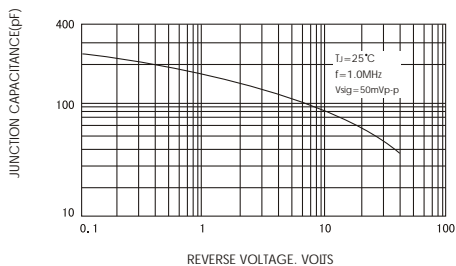


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

