

DATA SHEET

SS0520 SERIES

SURFACE MOUNT SCHOTTKY BARRIER

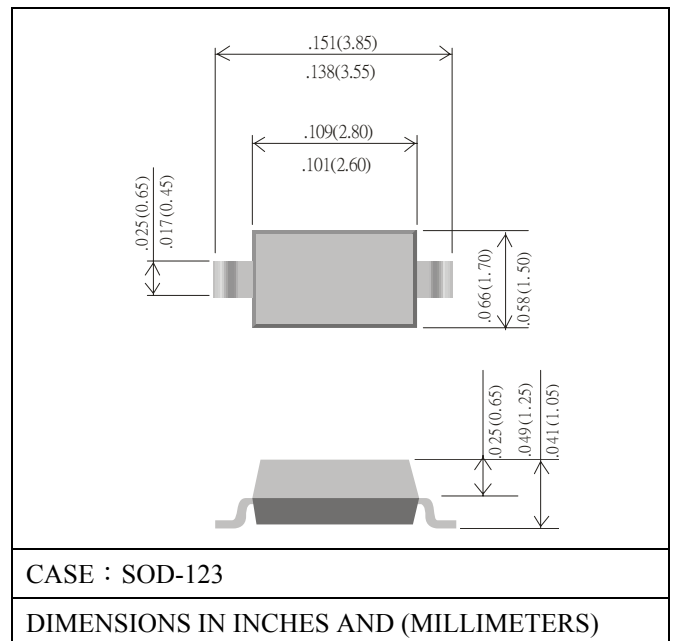
VOLTAGE 20~40 Volts **CURRENT** 500 mA

FEATURES

- LOW TURN-ON VOLTAGE
- FAST SWITCHING
- PN JUNCTION GUARD RING FOR TRANSIENT AND ESD PROTECTION

MECHANICAL DATA

- CASE : SOD-123, PLASTIC
- TERMINALS : SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: SEE DIAGRAM BELOW
- APPROX. WEIGHT: 0.008 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	SS0520	SS0530	SS0540	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	20	30	40	V
MAXIMUM RMS VOLTAGE	V_{RMS}	14	21	28	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	20	30	40	V
MAXIMUM AVERAGE FORWARD CURRENT AT $T_A=75^\circ\text{C}$	I_{AV}	0.5			A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD (JEDEC METHOD)	I_{FSM}	5.5			A
MAXIMUM THERMAL RESISTANCE	$R_{\theta JA}$	244			$^\circ\text{C}/\text{W}$
JUNCTION TEMPERATURE	T_J	-55 TO +125			$^\circ\text{C}$
STORAGE TEMPERATURE	T_{STG}	-55 TO +150			$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (A_T $T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	SS0520	SS0530	SS0540	UNITS
MAXIMUM FORWARD VOLTAGE	V_F	$I_F=100\text{mA}$	0.3	0.375	V
		$I_F=500\text{mA}$	0.385	0.43	
MAXIMUM DC REVERSE CURRENT	I_R	75@10V	20@15V	10@20V	μA
		250@20V	130@30V	20@40V	
JUNCTION CAPACITANCE (NOTE 1)	C_J	170			pF
REVERSE RECOVERY TIME (NOTE 2)	T_{RR}	4.0			ns

NOTE: 1. C_J AT $V_R=1\text{V}$, $f=1\text{MHz}$

2. FROM $I_F=I_R=10\text{mA}$, $I_{RR}=0.1 \times I_R$, $R_L=100\Omega$

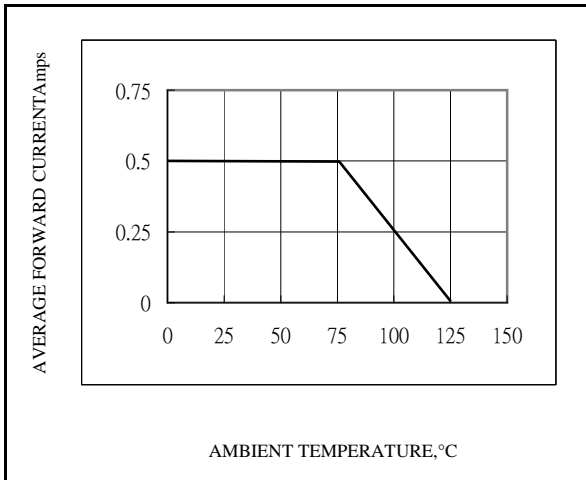


Fig.1-FORWARD CURRENT DERATING

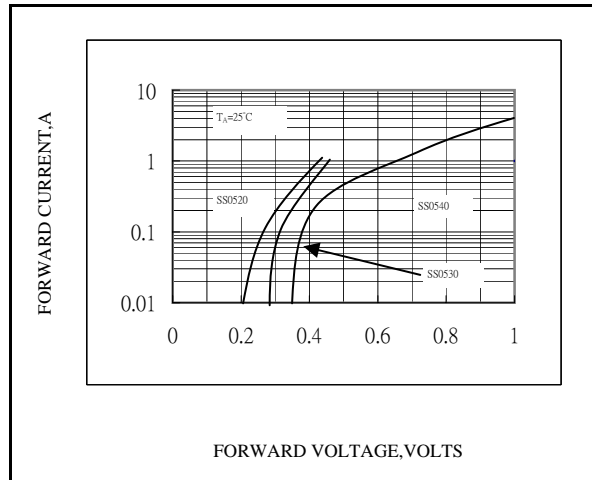


Fig.2-TYPICAL FORWARD VOLTAGE

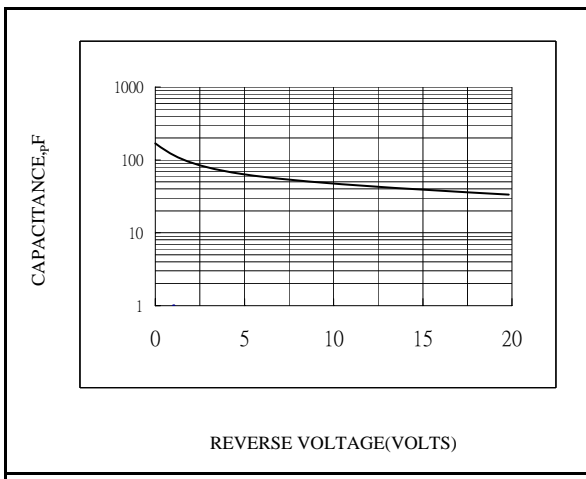


Fig.3- TYPICAL JUNCTION CAPACITANCE