

## VII. Switching Diode

### (c). SMD Type (SOD-323)

**1SS380**

(Package: SOD-323)

<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>• Fast switching speed.</li> <li>• Ideally suited for automated assembly processes.</li> <li>• For general purpose switching applications.</li> <li>• High reliability with high surge current handling capability.</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• Case : Molded plastic, SOD-323</li> <li>• Mounting position : Any</li> <li>• Polarity : Color band denotes cathode end</li> </ul> <p><b>DEVICE MARKING CODE</b></p> <ul style="list-style-type: none"> <li>• 1SS380 : 6D</li> </ul>	<p>Case: SOD-323 Dimensions in millimeters</p>
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### Ratings & Electrical Characteristics

Characteristic	Symbol	Limits	Unit
Non-Repetitive peak reverse voltage	$V_{RM}$	40	Volts
DC reverse voltage	$V_R$	35	Volts
Forward voltage (Max) (@ $I_F=100mA$ )	$V_F$	1.2	Volts
Average rectified output current	$I_O$	100	mA
Forward continuous current (Max)	$I_{FM}$	225	mA
Maximum reverse leakage current (@ $V_R=20V$ )	$I_R$	10	nA
Surge current ( $t=1.0s$ )	$I_{(surge)}$	400	mA
Power dissipation	$P_D$	200	mW
Capacitance between terminals (Max) $V_R=0.5V, f=1.0MHz$	$C_T$	5	PF
Operating junction temperature	$T_j$	125	
Storage temperature range	$T_{stg}$	-55 to +125	

# Ratings and Characteristic Curves of 1SS380

## ● Electrical characteristic curves ( $T_a = 25^\circ\text{C}$ )

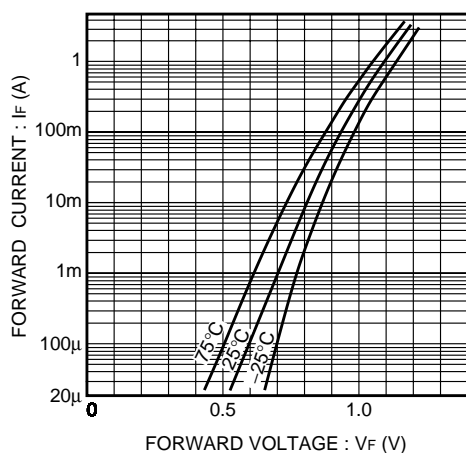


Fig. 1 Forward characteristics

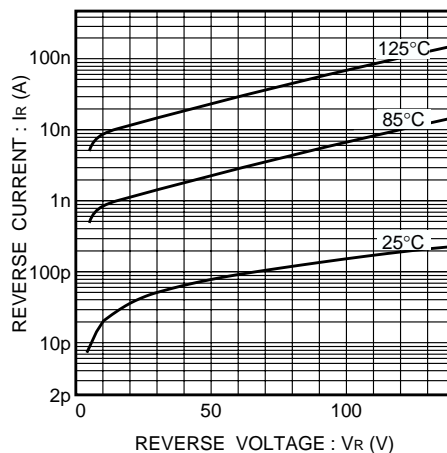


Fig. 2 Reverse characteristics

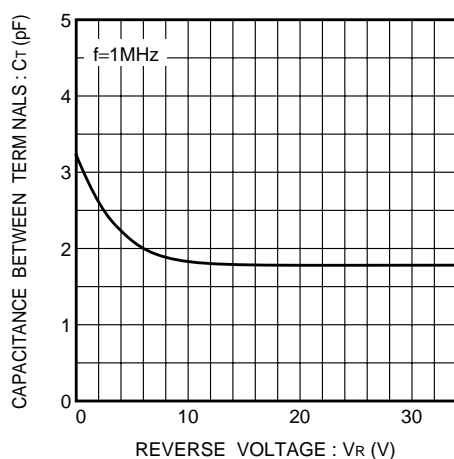


Fig. 3 Capacitance between terminals characteristics

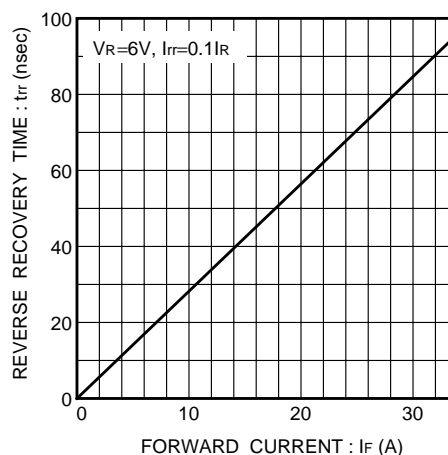


Fig. 4 Reverse recovery time characteristics

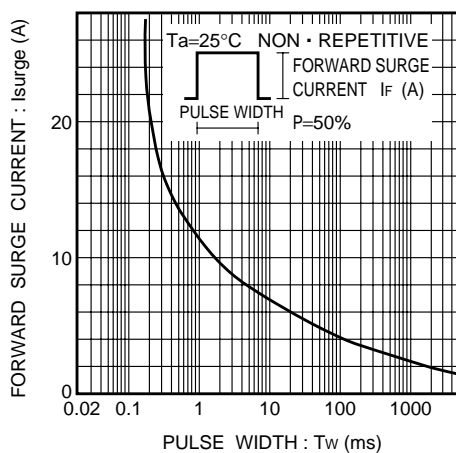


Fig. 5 Surge current characteristics

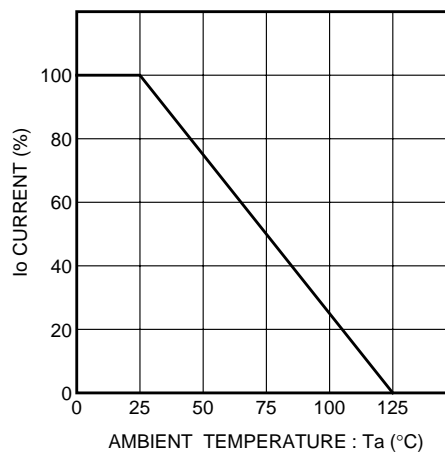


Fig. 6 Derating curve (mounting on glass epoxy PCBs)