

**Features**

- High Speed Switching Diode
- High Reliability With High Surge Current Handling Capability
- Surface Mount Package
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 833°C/W Junction to Ambient

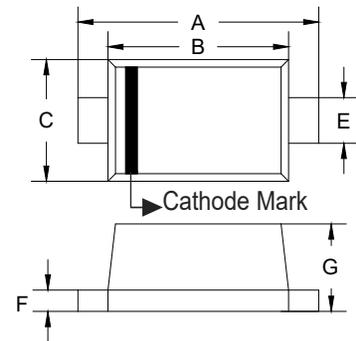
MCC Part Number	Device Marking
1SS400	A

Parameter	Symbol	Value
Maximum Peak Reverse Voltage	$V_{RM}$	90V
DC Reverse Voltage	$V_R$	80V
Peak Forward Current	$I_{FM}$	225mA
Average Forward Current	$I_{F(AV)}$	100mA
Peak Forward Surge Current (t=1s)	$I_{FSM}$	0.5A
Power Dissipation	$P_D$	150mW

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

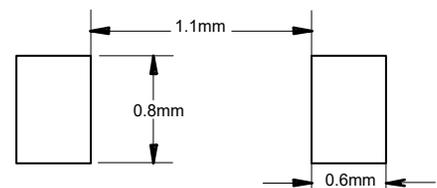
**90Volts  
High Speed  
Switching Diodes**

**SOD-523**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.043	0.051	1.10	1.30	
C	0.030	0.033	0.75	0.85	
E	0.010	0.014	0.25	0.35	
F	0.003	0.008	0.08	0.20	
G	0.020	0.026	0.50	0.65	

**Suggested Solder Pad Layout**



**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Forward Voltage	$V_F$	$I_F=100\text{mA}$			1.2	V
Reverse Current	$I_R$	$V_R=80\text{V}$			0.1	$\mu\text{A}$
Junction Capacitance	$C_J$	$V_R = 5\text{V}, f = 1\text{MHz}$			3	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10\text{mA},$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$			4	ns

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

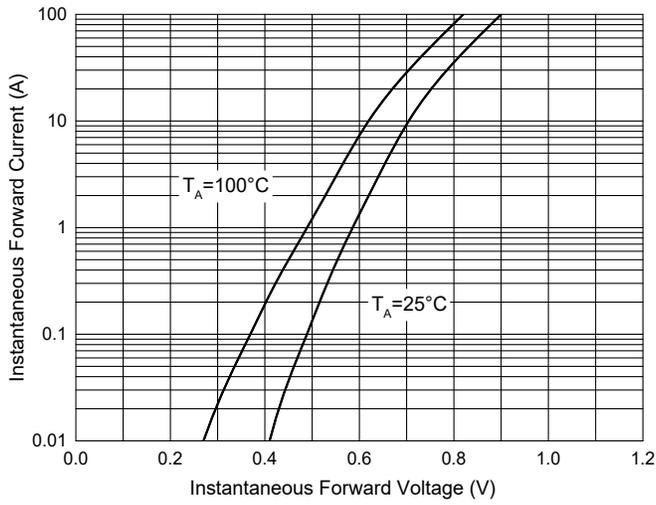


Fig. 2 - Typical Reverse Leakage Characteristics

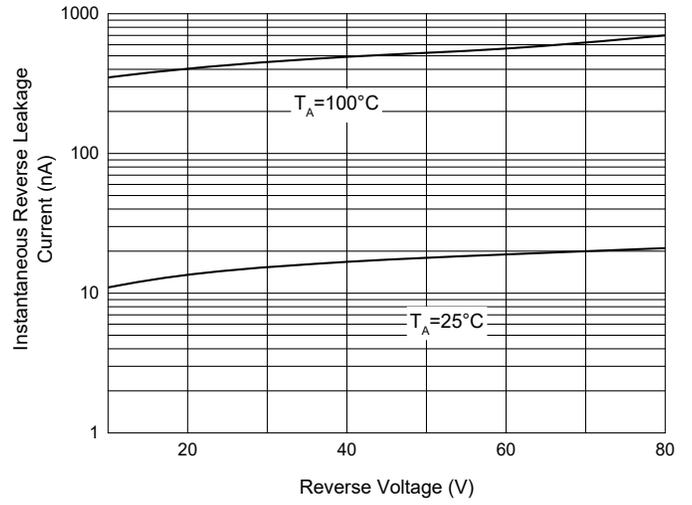
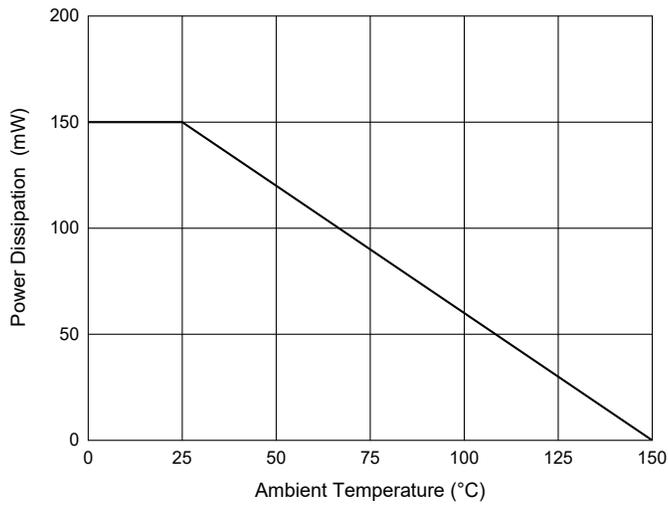


Fig. 3 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

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