

**Features**

- High Speed Switching Diode
- For General Purpose Switching Applications
- 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 +125°C
- Storage Temperature Range: -55°C to +125°C
- Thermal Resistance: 667°C/W Junction to Ambient

MCC Part Number	Device Marking
1SS388	S3

Parameter	Symbol	Value
Maximum Peak Reverse Voltage	$V_{RM}$	45V
Reverse Voltage	$V_R$	40V
Average Forward Current	$I_{F(AV)}$	100mA
Peak Forward Surge Current	$I_{FSM}$	1A
Power Dissipation	$P_D$	150mW

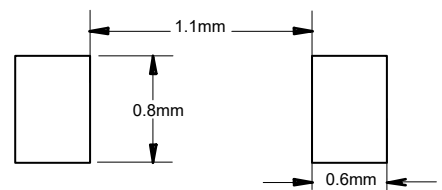
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <1000ppm chlorine, and no more than 1000ppm lead, 100ppm mercury, 1000ppm antimony, 100ppm bismuth, 100ppm barium, 100ppm cadmium, 100ppm cobalt, 100ppm copper, 100ppm manganese, 100ppm nickel, 100ppm silver, 100ppm tin, and 100ppm zinc.

# 45 Volts Switching Diode

**SOD-523**

DIMENSIONS					
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	$V_F$	$I_F=1\text{mA}$		0.28		V
		$I_F=10\text{mA}$		0.36		V
		$I_F=50\text{mA}$		0.54	0.6	V
Reverse Current	$I_R$	$V_R=10\text{V}$			5	$\mu\text{A}$
Junction Capacitance	$C_J$	$V_R = 0\text{V}, f = 1\text{MHz}$		18	25	pF

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

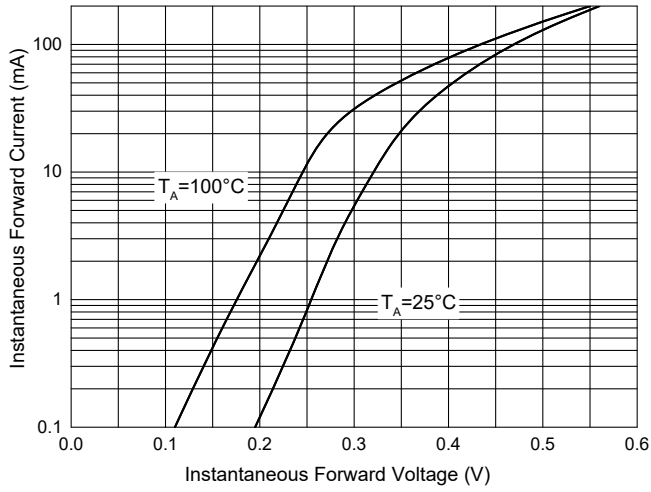


Fig. 2 - Typical Reverse Leakage Characteristics

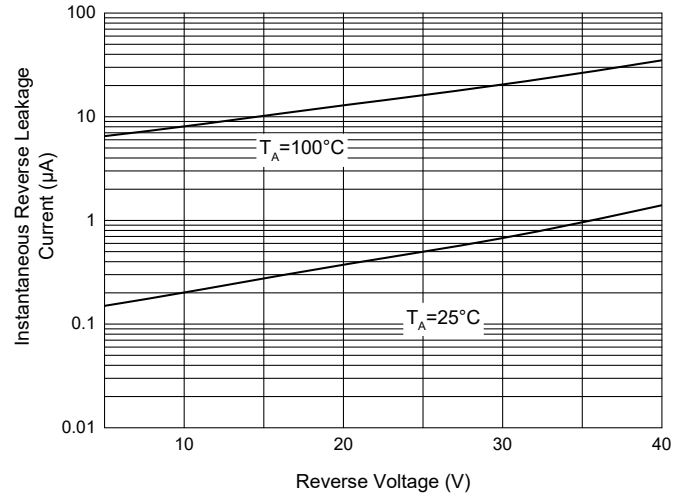
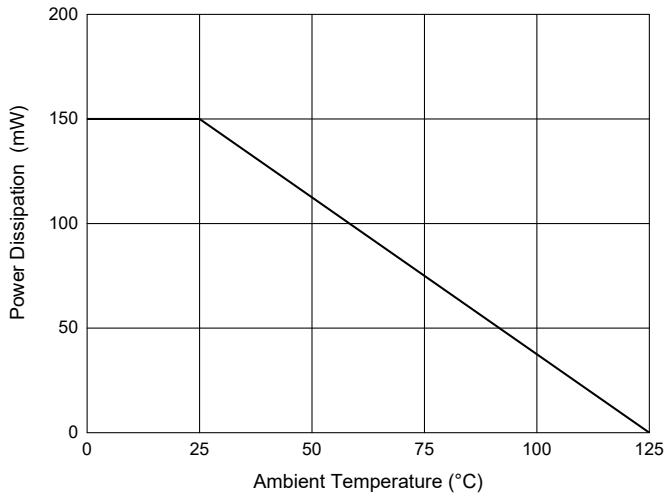


Fig. 3 - Power Derating Curve



## Ordering Information

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

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