

## 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

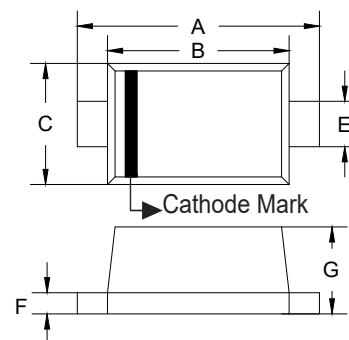
MCC Part Number	Device Marking
1SS388	S3

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, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

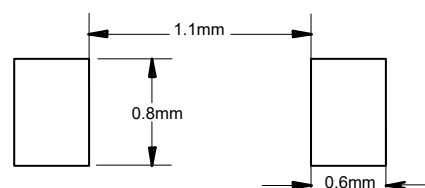
# 45 Volts Switching Diode

## SOD-523



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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

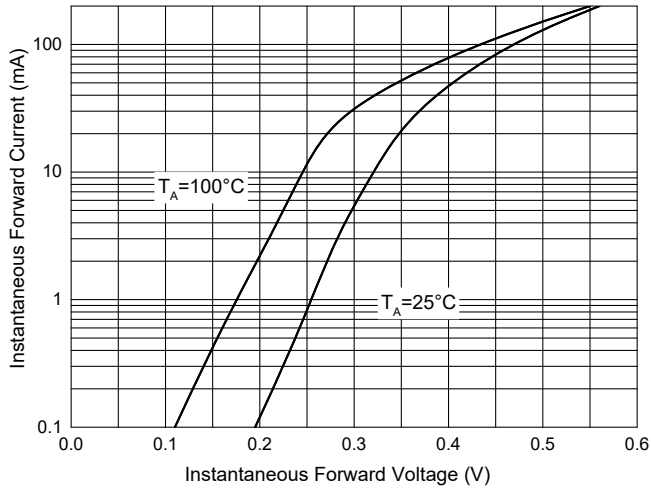


Fig. 2 - Typical Reverse Leakage Characteristics

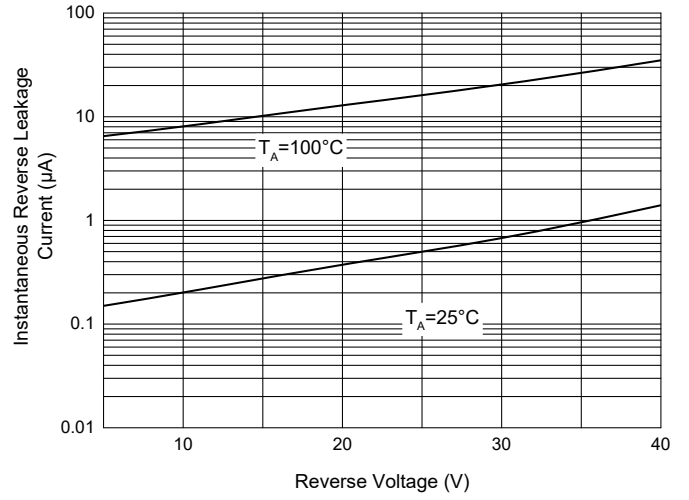
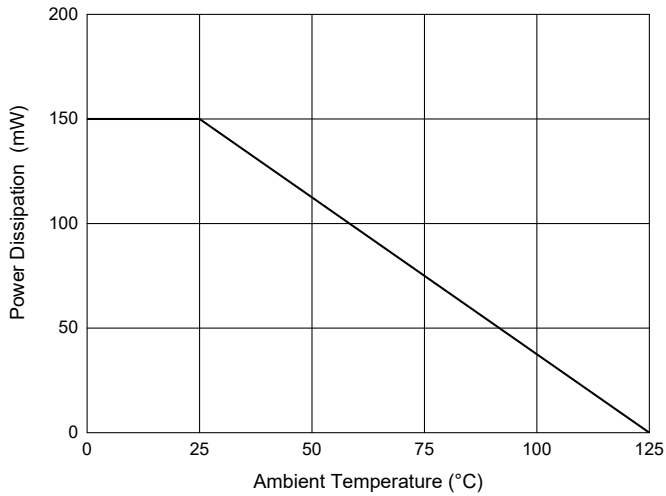


Fig. 3 - Power Derating Curve



## Ordering Information

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

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