

## Features

- High Speed Switching Diode
- For General Purpose Switching Applications
- 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**

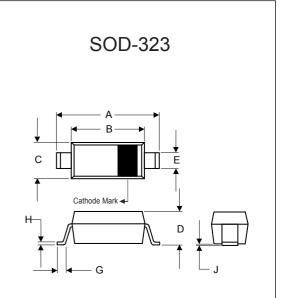
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +125°C
- Thermal Resistance: 500°C/W Junction to Ambient

MCC Part Number	Device Marking			
1SS357	S31			

Parameter	Symbol	Value
Maximum Reverse Voltage	$V_{RM}$	45V
DC Reverse Voltage	V <sub>R</sub>	40V
Average Forward Current	I <sub>F(AV)</sub>	100mA
Peak Forward Surge Current	I <sub>FSM</sub>	1A
Power Dissipation	P <sub>D</sub>	200mW

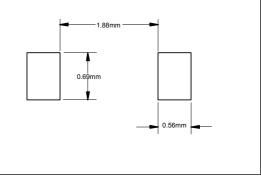
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

# 45 Volt Switching Diode



	DIMENSIONS				
		HES MM		NOTE	
Divi	MIN	MAX	MIN	MAX	NOTE
Α	0.090	0.107	2.30	2.70	
В	0.063	0.071	1.60	1.80	
С	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
Н	0.004	0.010	0.10	0.25	
J		0.006		0.15	

#### Suggested Solder Pad Layout





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

Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units
		I <sub>F</sub> =1mA		0.28		V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =10mA		0.36		V
		I <sub>F</sub> =100mA			0.6	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =40V			5	μA
Junction Capacitance	CJ	$V_R = 0V, f = 1MHz$		18	25	pF



# **Curve Characteristics**

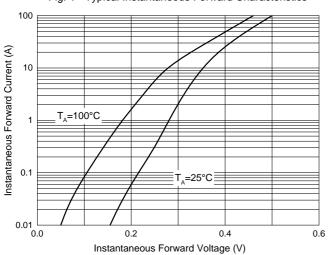


Fig. 1 - Typical Instantaneous Forward Characteristics

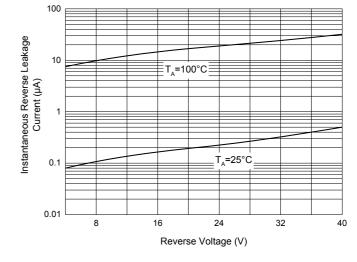
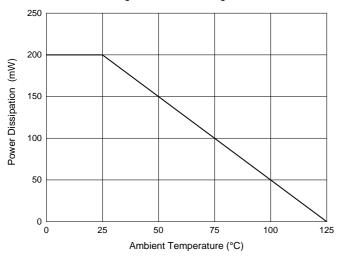


Fig. 2 - Typical Reverse Leakage Characteristics

Fig. 3 - Power Derating Curve





# **Ordering Information**

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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