

## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Small Surface Mounting Type
- Low Reverse Current and Low Forward Voltage
- High Reliability
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 333°C/W Junction to Ambient (Note 2)

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	DC Blocking Voltage VR
MBR0540C	40V	28V	40V

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

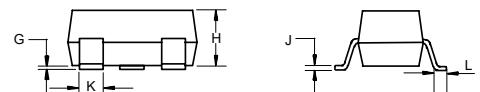
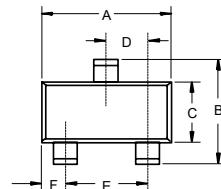
Forward current, single	$I_F$	500mA	
Peak Forward Surge Current	$I_{FSM}$	2.0A	t=8.3ms,half sine
Power Dissipation	$P_D$	300mW	
Max Forward Voltage	$V_F$	0.3V 0.5V	$I_F=10\text{mA}$ $I_F=200\text{mA}$
Max Reverse Current	$I_R$	70 $\mu\text{A}$	$V_R = 25\text{V}$
Max Junction Capacitance	$C_J$	100pF	Measured at 1.0MHz, $V_R=1.0\text{V}$
Max Reverse Recovery Time	$t_{rr}$	20ns	$I_F=I_R=10\text{mA}$ , $I_n=0.1\times$ $I_R$ , $R_L=100\Omega$

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

Note: 2. Part mounted on FR-4 board with recommended pad layout.

**500mA  
40V  
Schottky  
Barrier Rectifier**

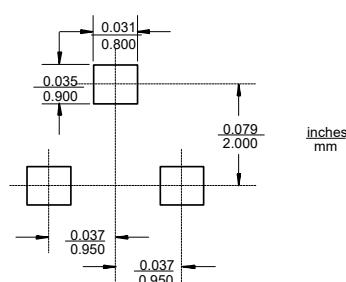
SOT-23



## DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	

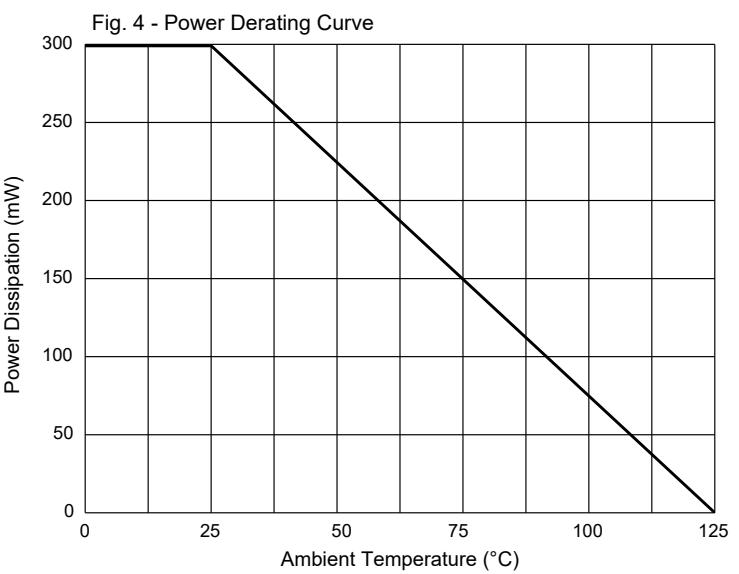
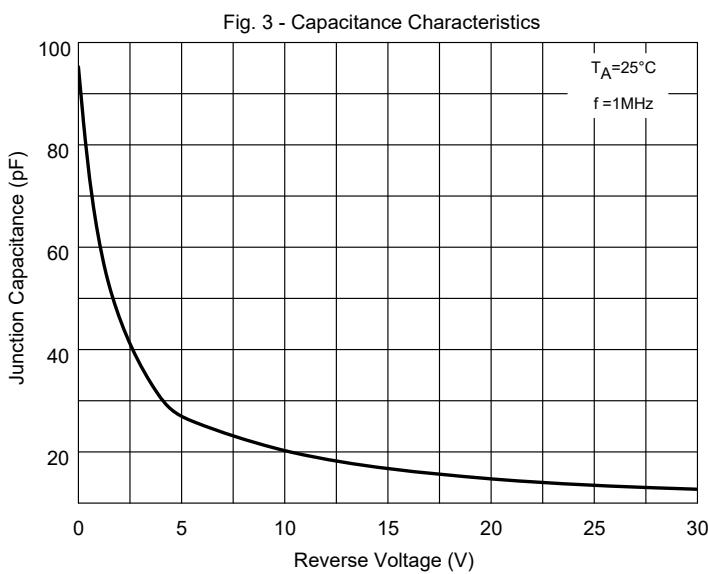
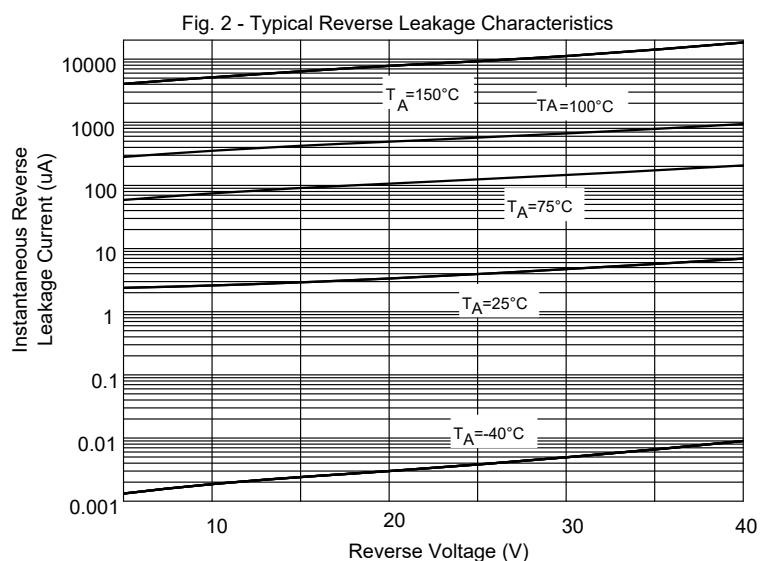
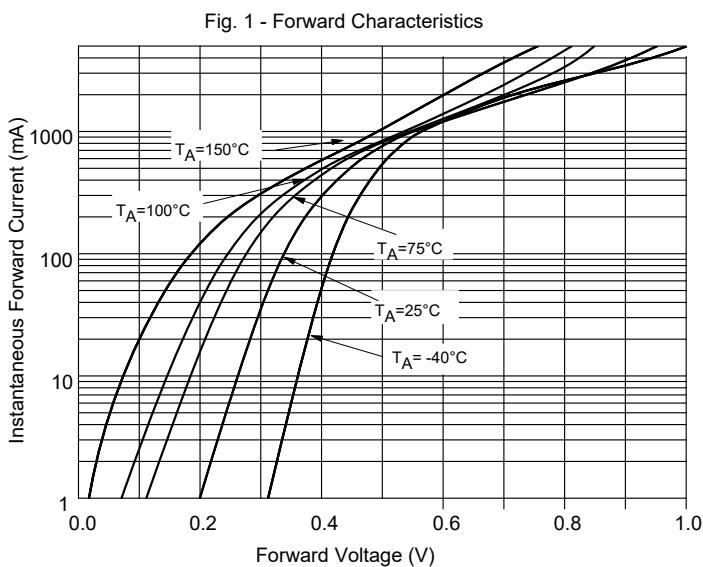
### Suggested Solder Pad Layout



## Internal Structure and Marking Code



## Curve Characteristics



## Ordering Information

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

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