

## **Features**

- High Conductance
- High Reverse Breakdown Voltage Rating
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating

## **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance:310°C/W Junction to Ambient

MCC Part Number	Device Marking	Peak Repetitive Reverse Voltage V <sub>RRM</sub>	RMS Reverse Voltage V <sub>R(RMS)</sub>	Continuous Reverse Voltage V <sub>R</sub>
MMBD3004S	4P	350V	212V	240V

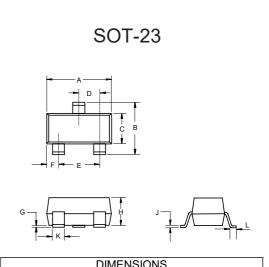
Continuous Forward Current	I <sub>F</sub>	225mA	
Peak Forward Surge Current	I <sub>FSM</sub>	1A 4A	@ t=1.0s @ t=1.0µs
Repetitive Peak Forward Curren	I <sub>FRM</sub>	625mA	
Power Dissipation	P <sub>d</sub>	410mW	T <sub>A</sub> =25°C

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

## **Internal Structure**

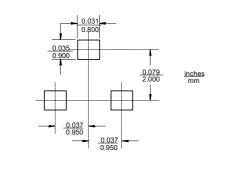






	DIMENSIONS				
	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOTE
Α	0.110	0.120	2.80	3.04	
В	0.083	0.104	2.10	2.64	
С	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
Н	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.014	0.020	0.35	0.51	
L	0.007	0.020	0.20	0.50	

#### Suggested Solder Pad Layout



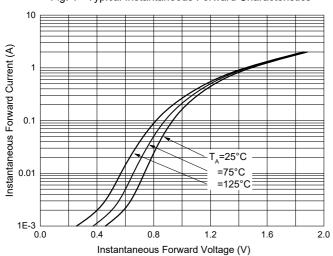


### Electrical Characteristics @ 25°C Unless Otherwise Specified

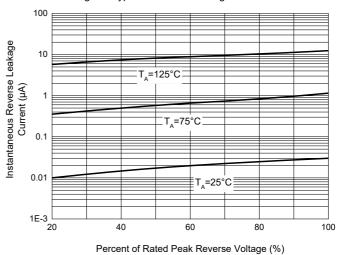
Minimum Reverse Breakdown Voltage	V <sub>BR</sub>	350V	Ι <sub>R</sub> =150μΑ
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	0.87V 1.00V 1.25V	I <sub>F</sub> =20.0mA I <sub>F</sub> =100.0mA I <sub>F</sub> =200.0mA
Maximum Instantaneous Reverse Current	I <sub>R</sub>	100nA 100μA	V <sub>R</sub> =240V V <sub>R</sub> =240V, T <sub>j</sub> =150°C
Maximum Junction Capacitance	CJ	5.0pF	V <sub>R</sub> =0.0V,f=1.0MHz
Maximum Reverse Recovery Time	t <sub>rr</sub>	50.0ns	I <sub>F</sub> =30mA, I <sub>R</sub> =30mA I <sub>rr=</sub> 3mA, R <sub>L</sub> =100Ω



# **Curve Characteristics**

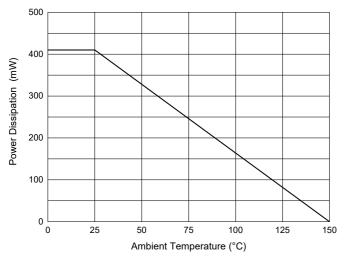


#### Fig. 1 - Typical Instantaneous Forward Characteristics



#### Fig. 2 - Typical Reverse Leakage Characteristics

Fig. 3 - Power Derating Curve





# **Ordering Information**

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

## \*\*\*IMPORTANT NOTICE\*\*\*

*Micro Commercial Components Corp*. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp*. does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp*. and all the companies whose products are represented on our website, harmless against all damages.

## \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

## \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources**. MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.