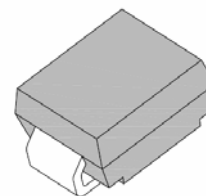


## 1.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier

### Features

- Sintered glass passivated (SGP) rectifier chip
- Ultra fast reverse recovery time
- Low forward voltage, high current capability
- Low leakage current, high surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- 175° C operation junction temperature
- RoHS Compliance



**SMB**



### Mechanical Data

<b>Case:</b>	JEDEC DO-214AA (SMB) molded plastic over passivated chip
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Tin plated, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	0.003 ounces, 0.093 gram

### Maximum Ratings and Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless noted otherwise)

Symbol	Description	MURS140	MURS160	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	400	600	V	
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	280	420	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	400	600	V	
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	1.0		A	T <sub>L</sub> =150° C
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	35		A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage	1.25		V	I <sub>F</sub> =1.0A, T <sub>j</sub> =25° C

# 1.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier

## MURS140 - MURS160

Symbol	Description	MURS140	MURS160	Unit	Conditions
<b>IR</b>	Maximum DC Reverse Current at Rated DC Blocking Voltage	5		$\mu\text{A}$	$T_j=25^\circ\text{C}$
		50			$T_j=125^\circ\text{C}$
		100			$T_j=150^\circ\text{C}$
<b>T<sub>rr</sub></b>	Maximum Reverse Recovery Time	50		nS	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$
<b>T<sub>fr</sub></b>	Maximum Forward Recovery Time	50		nS	$I_F=1.0\text{A}$ , $di/dt=100\text{A}/\mu\text{S}$ , recovery to 1.0V
<b>C<sub>J</sub></b>	Typical Junction Capacitance	25		pF	$V_R=4\text{V}$ , $f=1\text{MHz}$
<b>R<sub>thJL</sub></b>	Typical Thermal Resistance	13		$^\circ\text{C} / \text{W}$	Note
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-65 to +175		$^\circ\text{C}$	

**Note:** Thermal resistance from junction to ambient and from junction to lead P.C.B mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas..

### Typical Characteristics Curves

Fig.1-Forward Current Derating Curve

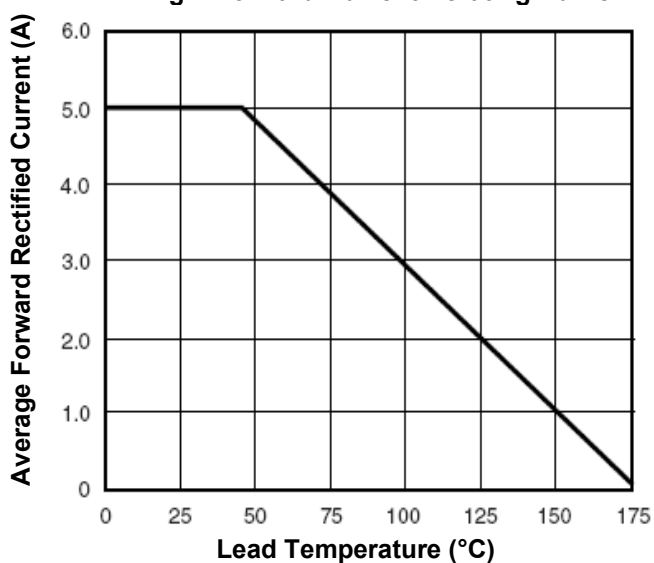
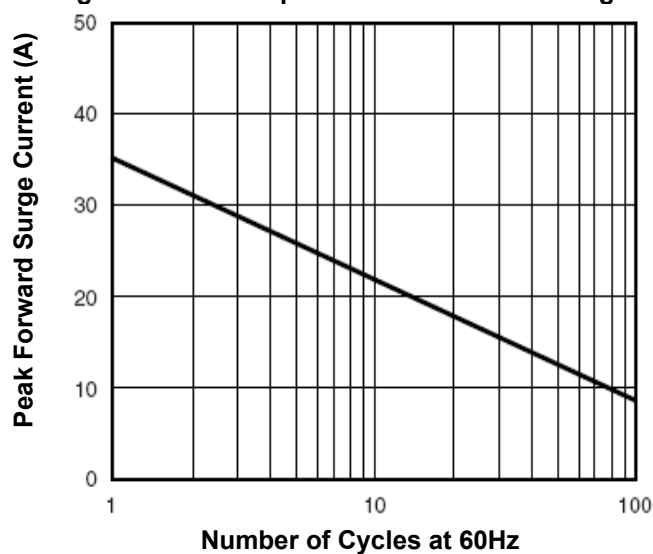


Fig.2-Max. Non-Repetitive Peak Forward Surge Current



# 1.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier

## MURS140 - MURS160

Fig.3- Typical Instantaneous Forward Characteristics

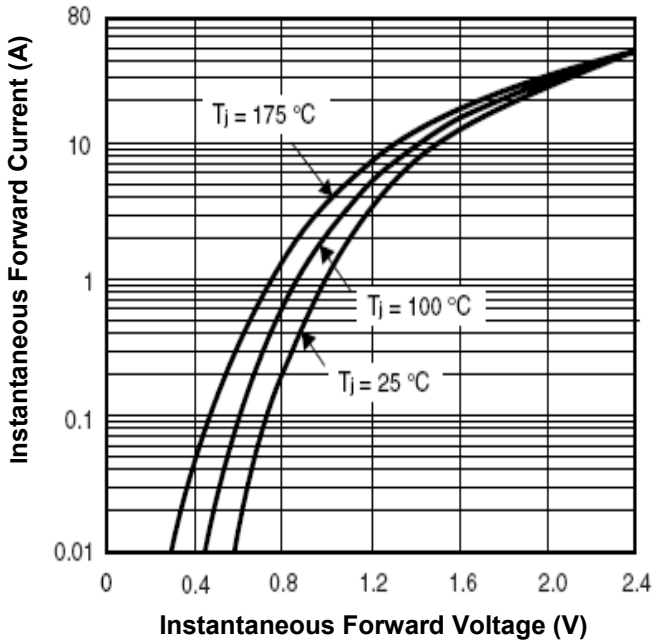


Fig.4-Typical Reverse Characteristics

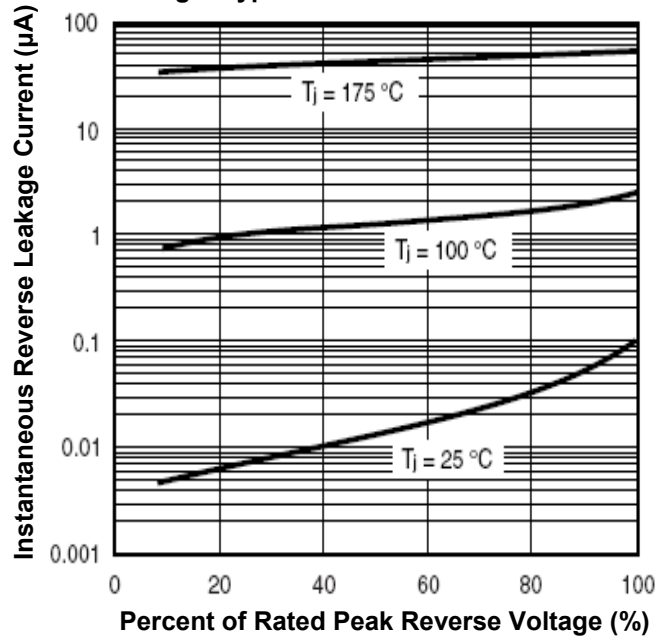
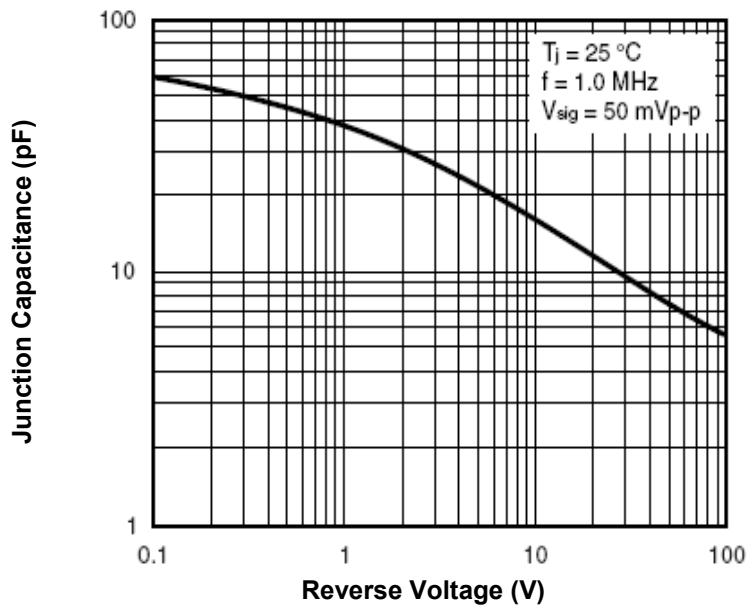


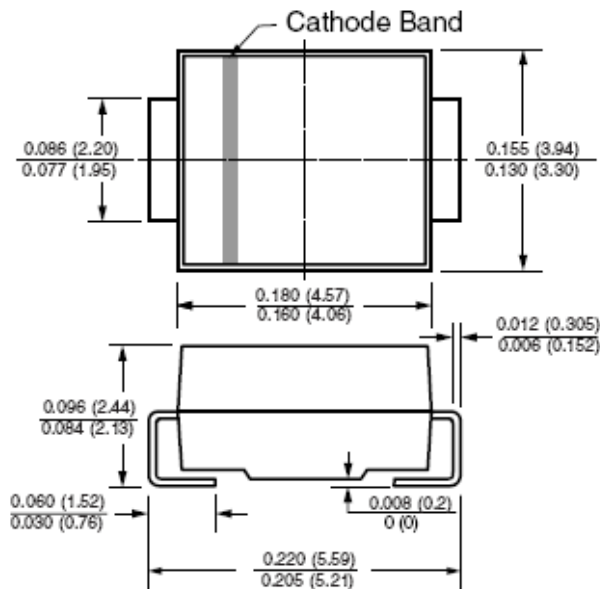
Fig.5- Typical Junction Capacitance



# 1.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier

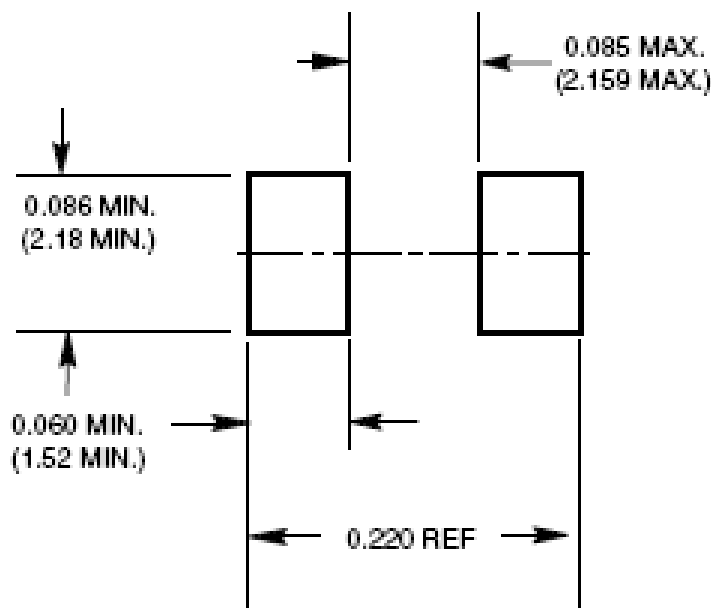
## MURS140 - MURS160

### Dimensions in inches (mm)



SMB

### Mounting Pad Layout in mm (inch)



# 1.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier

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MURS140 - MURS160

## How to contact us:

### **US HEADQUARTERS**

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 824-8766 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

### **TAITRON COMPONENTS MEXICO, S.A .DE C.V.**

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.  
42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

### **TAITRON COMPONETS INCORPORATED E REPRESENTAÇÕES DO BRASIL LTDA**

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

### **TAITRON COMPONETS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE**

METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931