



# MURB3JG

## Surface Mount Super Fast Recovery Rectifier

**Voltage** 600 V **Current** 3 A

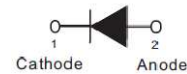
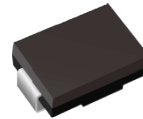
### Features

- Superfast recovery times-epitaxial construction
- Low forward voltage, high current capability
- Low leakage
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case : SMB Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0032 ounces, 0.092 grams

### SMB



## Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	600	V
Maximum Rms Voltage	V <sub>RMS</sub>	420	V
Maximum Dc Blocking Voltage	V <sub>DC</sub>	600	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	3	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I <sub>FSM</sub>	100	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V <sub>R</sub> = 4 V	C <sub>J</sub>	28	pF
Typical Thermal Resistance <sup>(Note 1)</sup>	R <sub>θJA</sub>	135	°C/W
	R <sub>θJC</sub>	21	
Operating Junction Temperature Range	T <sub>J</sub>	-55~175	°C
Storage Temperature Range	T <sub>STG</sub>	-55~175	°C



# MURB3JG

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 1\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	0.92	-	V
		$I_F = 2\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	1.03	-	
		$I_F = 3\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	-	1.25	
		$I_F = 1\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.74	-	
		$I_F = 2\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.84	-	
		$I_F = 3\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.92	-	
Reverse Current	$I_R$	$V_R = V_{RRM}, T_J = 25\text{ }^\circ\text{C}$	-	-	5	uA
		$V_R = V_{RRM}, T_J = 125\text{ }^\circ\text{C}$	-	8	-	
Reverse Recovery Time <sup>(Note 2)</sup>	$T_{RR}$	---	-	-	50	ns

**NOTES:**

1. Mounted on a FR4 PCB, single-sided copper, standard footprint
2. Reverse Recovery Test Conditions:  $I_F=0.5\text{ A}$  ,  $I_R=1\text{ A}$   $I_{rr}=0.25\text{ A}$



# MURB3JG

## TYPICAL CHARACTERISTIC CURVES

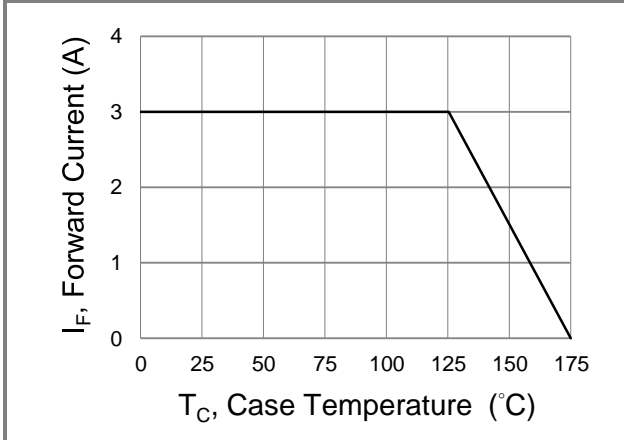


Fig.1 Forward Current Derating Curve

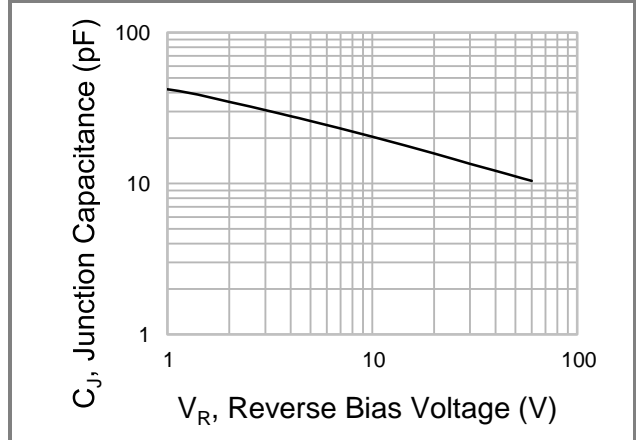


Fig.2 Typical Junction Capacitance

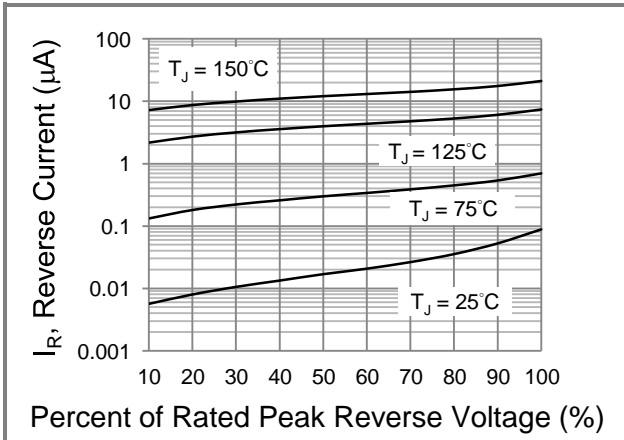


Fig.3 Typical Reverse Characteristics

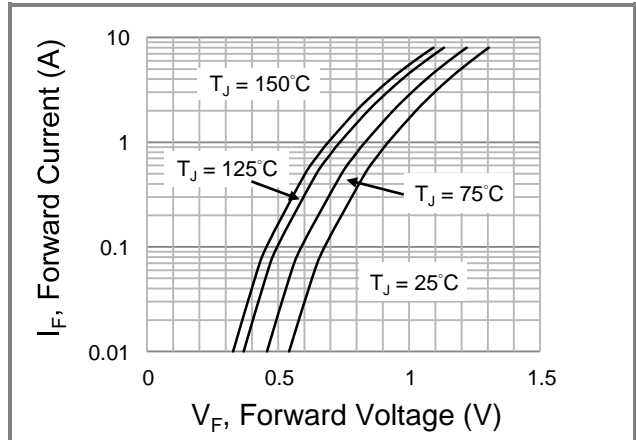


Fig.4 Typical Forward Characteristics



# MURB3JG

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
MURB3JG_R1_00001	SMB	0.8K pcs / 7" reel	MUB3JG	Halogen free

## Packaging Information & Mounting Pad Layout

