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MURSXXT3G-MS

Product specification



SURFACE MOUNT ULTRAFAST POWER RECTIFIERS DIODES**VOLTAGE RANGE: 50 - 600V****CURRENT: 2.0A****Features**

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Low Power Loss
- Super-Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: SMA/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable
- per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.093 grams (approx.)

Reference News

PACKAGE OUTLINE	Marking
	
SMB(DO-214AA)	*** Representative VRRM

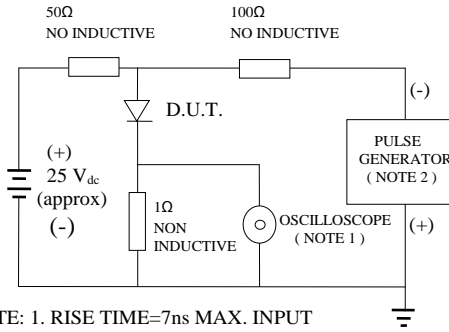
Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	MURS205 T3G-MS	MURS210 T3G-MS	MURS215 T3G-MS	MURS220 T3G-MS	MURS230 T3G-MS	MURS240 T3G-MS	MURS260 T3G-MS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	150	200	300	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	210	280	420	V
Average Rectified Output Current @ $T_L = 75^\circ\text{C}$	I_o	2.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	40				35			A
Forward Voltage @ $I_F = 2.0\text{A}$	V_{FM}	0.95				1.45			V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	I_{RM}	5.0 250				μA			
Reverse Recovery Time (Note 1)	t_{rr}	35				nS			
Typical Junction Capacitance (Note 2)	C_j	20				50			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	40				$^\circ\text{C/W}$			
Operating and Storage Temperature Range	T_j , T_{STG}	-65 to +150							$^\circ\text{C}$

- Note:** 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$. See figure 5.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
 3. Mounted on P.C. Board with 8.0mm² land area.

RATINGS AND CHARACTERISTIC CURVE MURSXXXT3G-MS

FIG. 1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTE: 1. RISE TIME=7ns MAX. INPUT IMPEDANCE=1 MOhms 22PF
2. RISE TIME =10ns MAX. SOURCE IMPEDANCE=50 OHMS

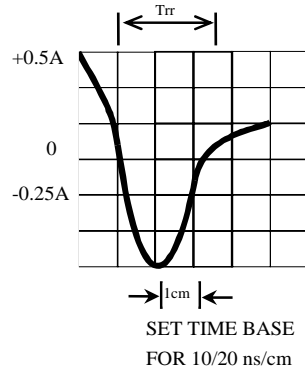


FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE

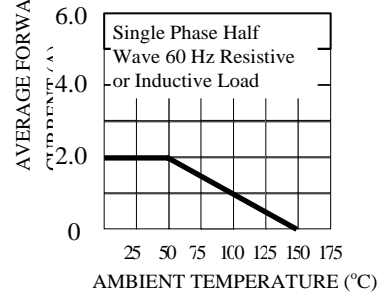


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

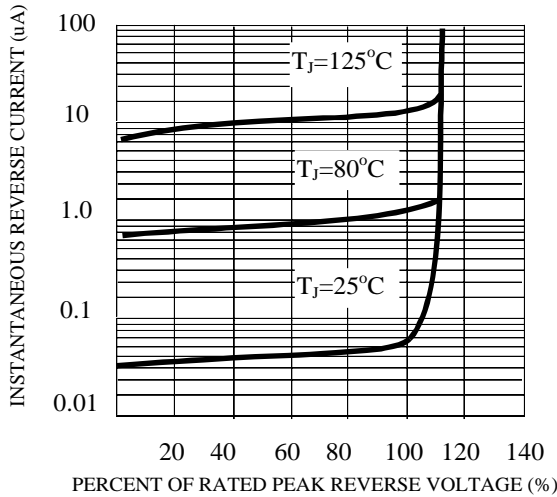


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

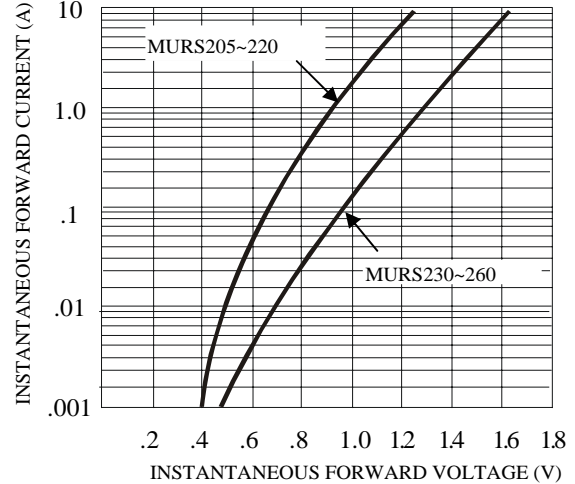


FIG. 5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

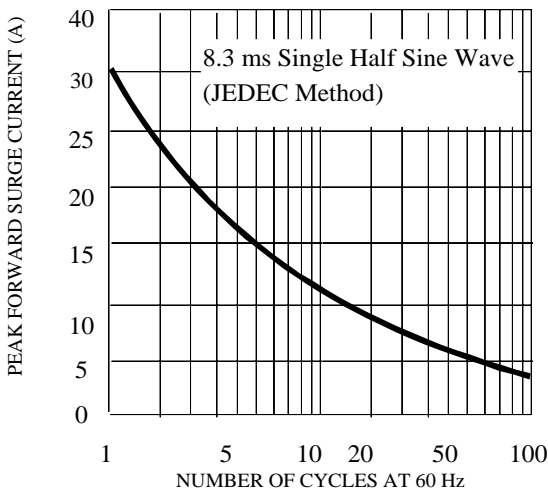
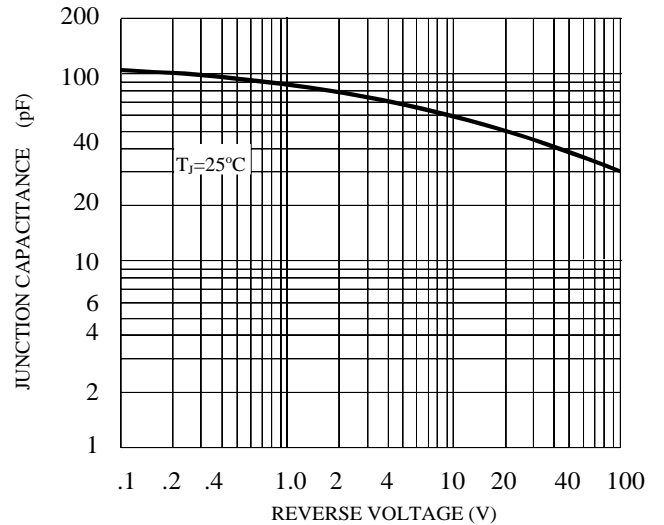
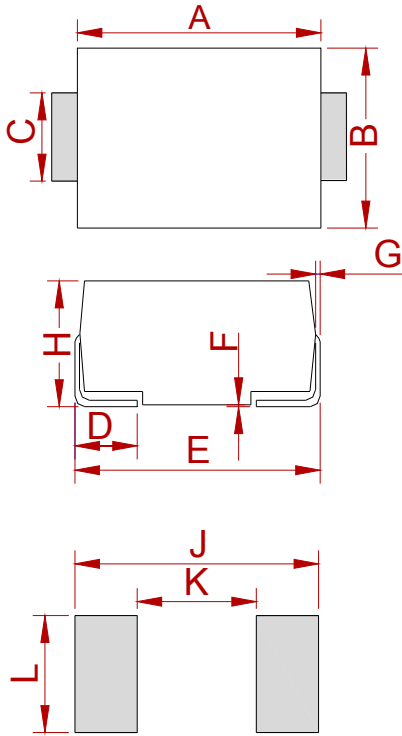


FIG. 6-TYPICAL JUNCTION CAPACITANCE



PACKAGE MECHANICAL DATA



DO-214AA (SMB)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.75	0.167	0.187
B	3.30	3.94	0.130	0.155
C	1.85	2.21	0.073	0.087
D	0.76	1.52	0.030	0.060
E	5.08	5.59	0.200	0.220
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.11	2.44	0.083	0.096
J	6.80		0.270	
K		2.60		0.100
L	2.40		0.090	

REEL SPECIFICATION

P/N	PKG	QTY
MURSXXXT3G-MS	DO-214AA(SMB)	2500

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