

## MUR1JGR

### 1.0AMP. GLASS PASSIVATED SURFACE ULTRA FAST RECTIFIERS

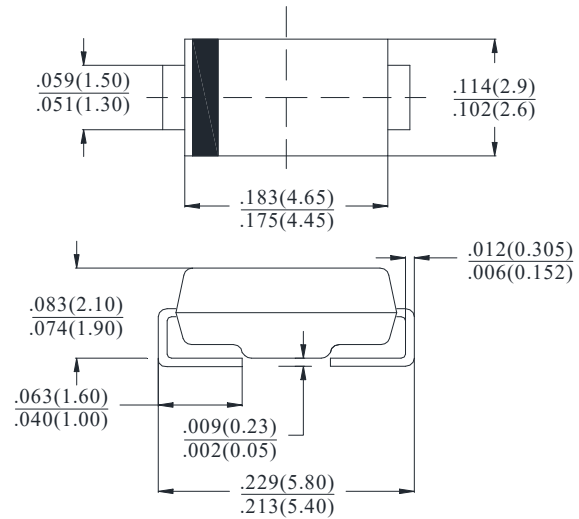
#### FEATURE

- . High current capability,
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . Super fast recovery time for high efficiency
- . High temperature soldering guaranteed  
260°C /1 0sec/0.375" lead length at 5 lbs tension

#### MECHANICAL DATA

- . Case: Molded plastic
- . Epoxy: UL94V-0 rate flame retardant
- . Lead: MIL-STD- 202E, Method 208 guaranteed
- . Polarity:Color band denotes cathode end
- . Packaging:12mm tape per EIA STD RS-481
- . Mounting position: Any

#### SMA(DO-214AC)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	SYM BOL	MUR1JGR	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS Voltage	$V_{RMS}$	420	V
Maximum DC blocking Voltage	$V_{DC}$	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	25.0	A
Maximum Forward Voltage at 1.0A DC	$V_F$	1.30	V
Maximum DC Reverse Current at rated DC blocking voltage	$I_R$	T <sub>j</sub> =25°C 5.0	μA
		T <sub>j</sub> =125°C 200.0	
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	50	nS
Typical Junction Capacitance (Note2)	$C_J$	15	pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	75	°C/W
	$R_{(JC)}$	22	
Storage Temperature	$T_{STG}$	-55 to +150	°C
Operation Junction Temperature	$T_J$	-55 to +150	°C

#### Note:

1. Reverse Recovery test Condition: If=0.5A,IR=1.0A,IRR=0.25A;
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. P.C.B.Mounted on0.2×0.2"(5.0×5.0mm)[0.013mm thick]Copper Pad Area.

**RATING AND CHARACTERISTIC CURVES**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

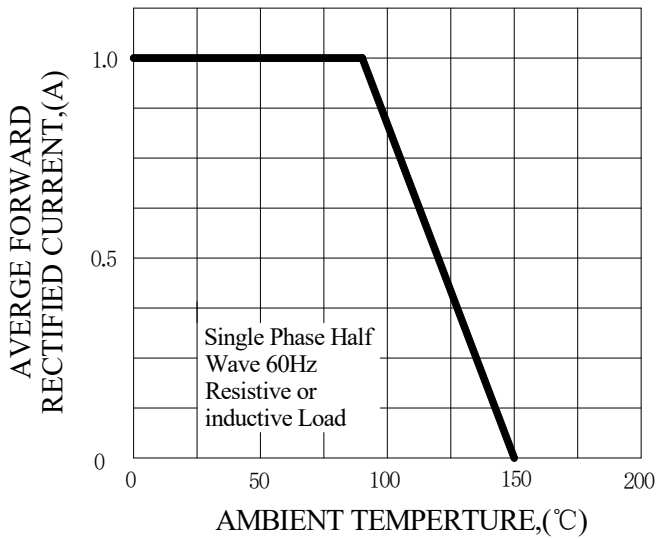


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

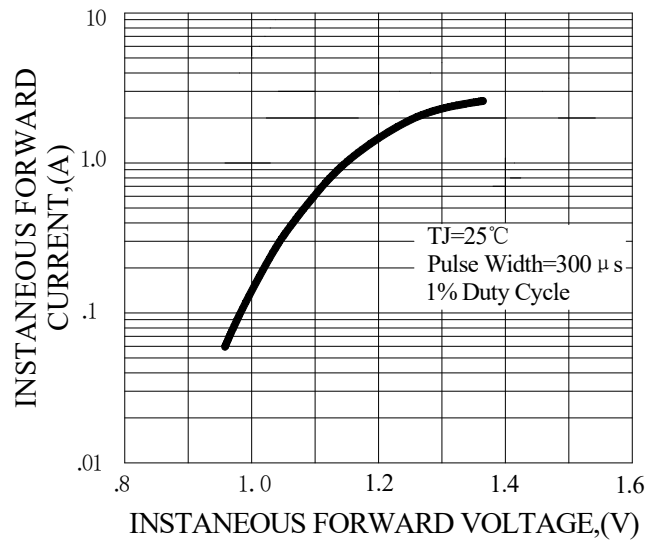


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

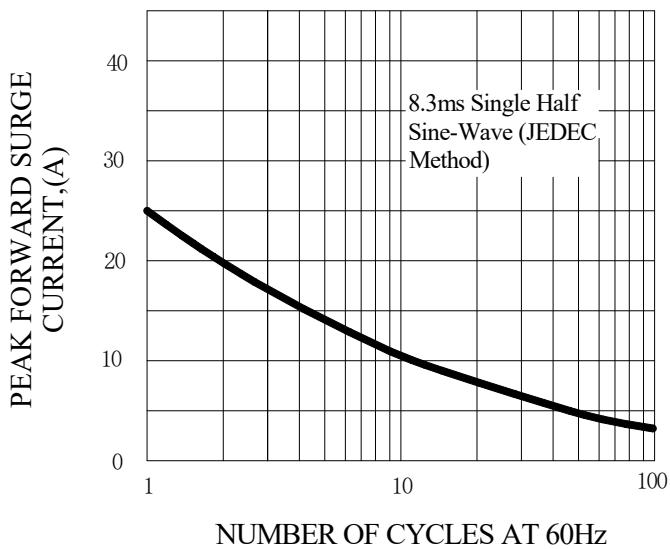


FIG.4-TYPICAL REVERSE CHARACTERISTICS

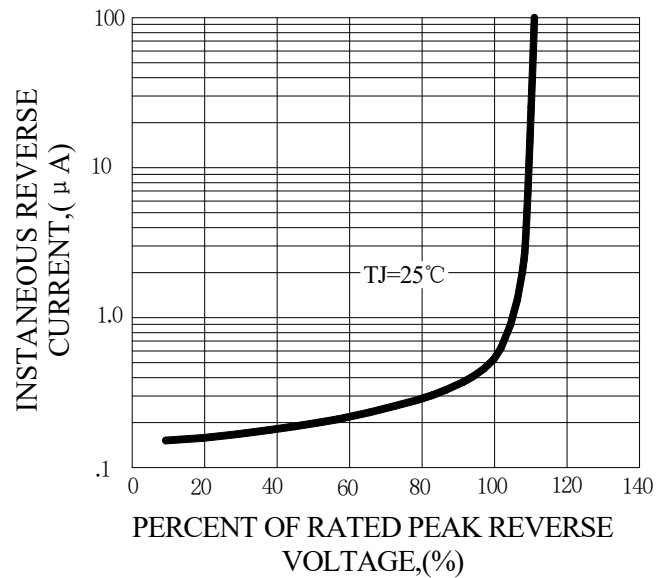
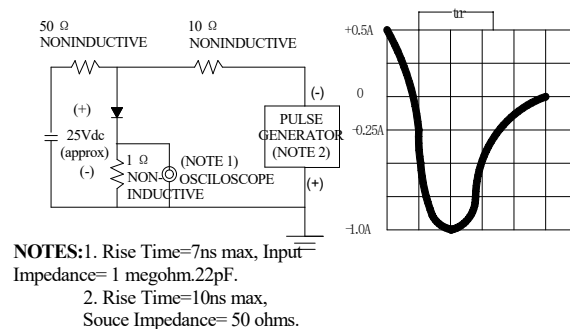
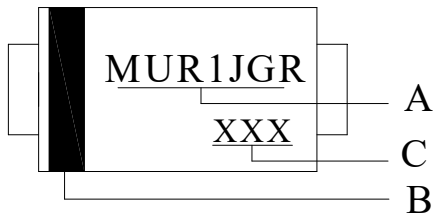


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



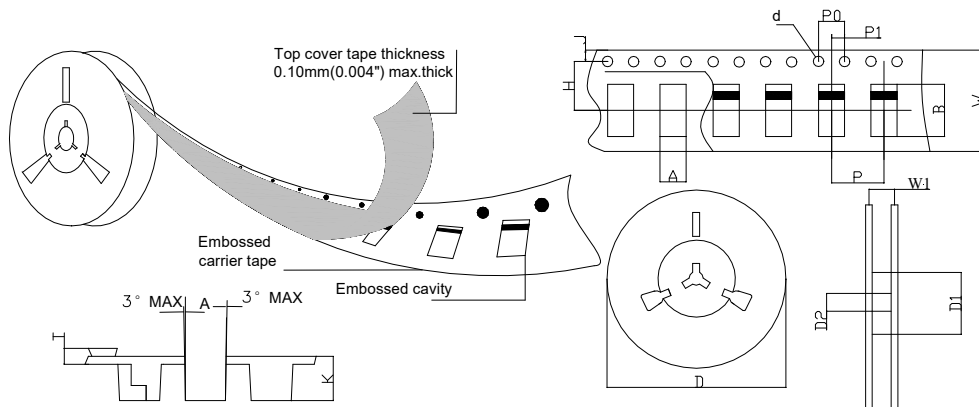
## Marking and packaging illustration

### 1、Marking



SYMBOL	Explanation
A	Product name
B	Color Band Denotes Cathode
C	Date code

### 2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	SMA (DO-214AC)	ITEM	SYM BOL	SMA (DO-214AC)
Carrier width	A	3.17(0.125)Max	Carrier depth	K	2.42(0.095)Typ
Carrier length	B	5.81(0.229)Max	Punch hole pitch	P	4.00(0.157)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	330.0(13)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	50.0(1.969)Min	Overall tape thickness	T	0.30(0.012)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	12.0(0.472)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	12.4(0.488)Min
Punch hole position	H	5.55(0.219)Typ			