

MUR2KGR

2.0AMPS.GLASS PASSIVATED SUPER FAST RECTIFIERS

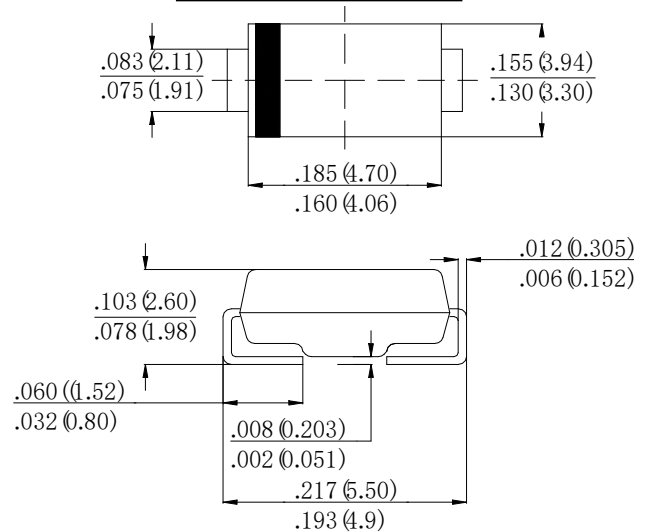
FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed:
260°C/10 seconds at terminals.
- . For surface mounted application.
- . Easy pick and place.

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

SMB (DO-214AA)



Dimensions in inches and (millimeters)

Single phase, half wave, 60Hz,resistive or inductive load.

For capacitive load, derate current by 20%

MAXIMUM RATINGS (T_C=25°C unless otherwise noted)

Parameter	Symbol	MUR2KGR	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	V
Maximum RMS Voltage	V_{RMS}	560	V
Maximum DC blocking Voltage	V_{DC}	800	V
Average Forward Rectified Current	$I_{F(AV)}$	2	A
Non-repetitive forward surge current,8.3mS half sine-wave	I_{FSM}	60	A
Maximum Reverse Recovery Time (Note 1)	t_{rr}	75	nS
Typical Junction Capacitance (Note 2)	C_J	15	pF
Operation Junction Temperature and Storage Temperature	$T_J,$ T_{STG}	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Units
Instantaneous Forward voltage at 2A	V_F	-----	1.1	1.30	V
@T _J =25°C			0.95	-----	
reverse current at rated DC blocking voltage	I_R	-----	-----	5.0	uA
@T _J =25°C			-----	100.0	
@T _J =125°C	-----	-----	-----	-----	-----

THERMAL CHARACTERISTICS(T_C=25°C unless otherwise noted)

Parameter	Symbol	MUR2KGR	Units
Typical Thermal Resistance (Note 3)	$R_{(JC)}$	23	°C/W

Note:

- 1.Conditions: $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$
- 2.T_J=25°C,V_R = 4V_{DC}@1Mhz
- 3.Measured on P.C.Board with 15.0mm*15.0mm*1.60mm Copper Pad Areas

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

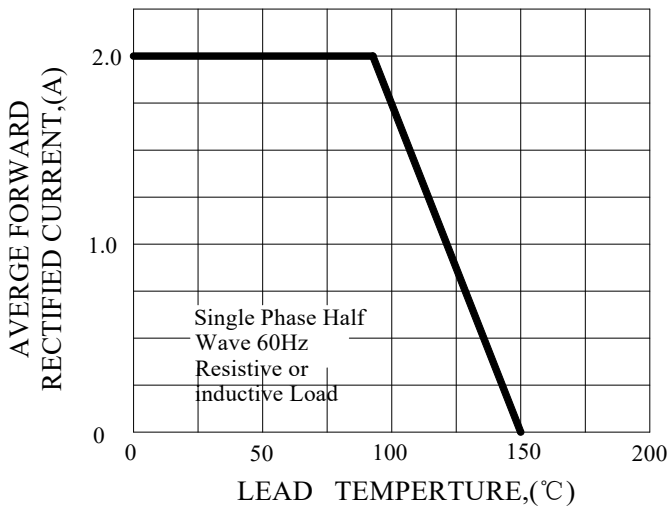


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

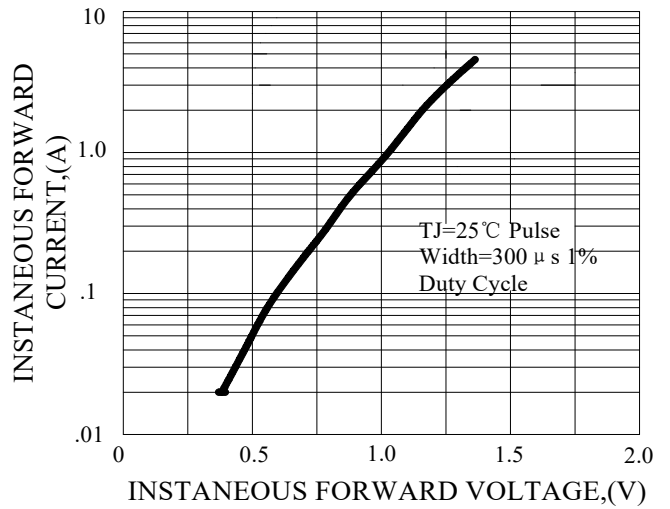


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

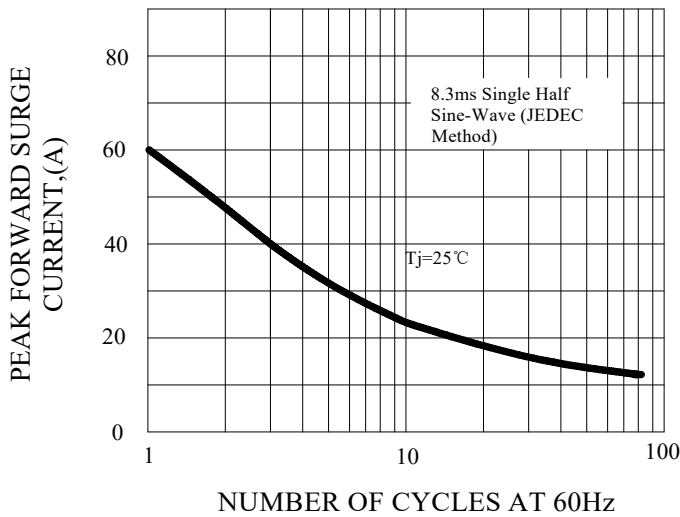


FIG.4-TYPICAL REVERSE CHARACTERISTICS

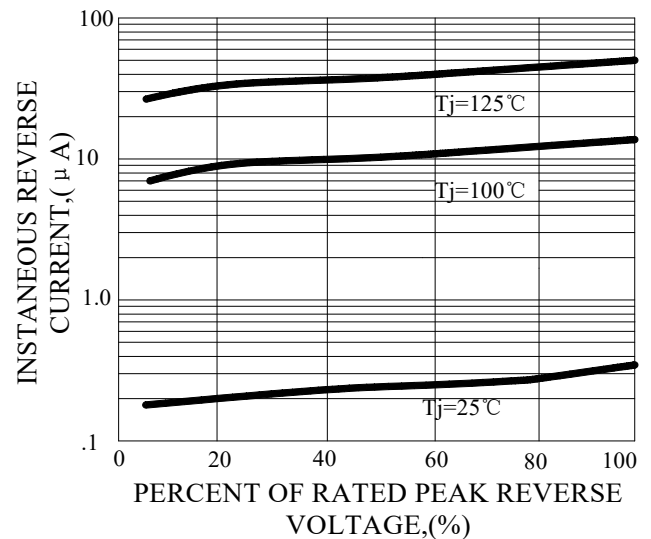
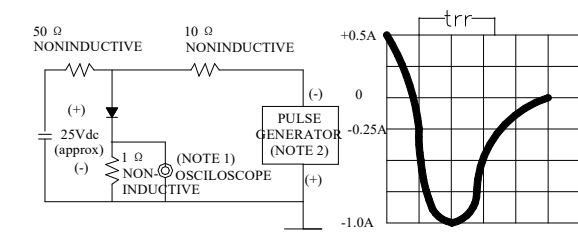
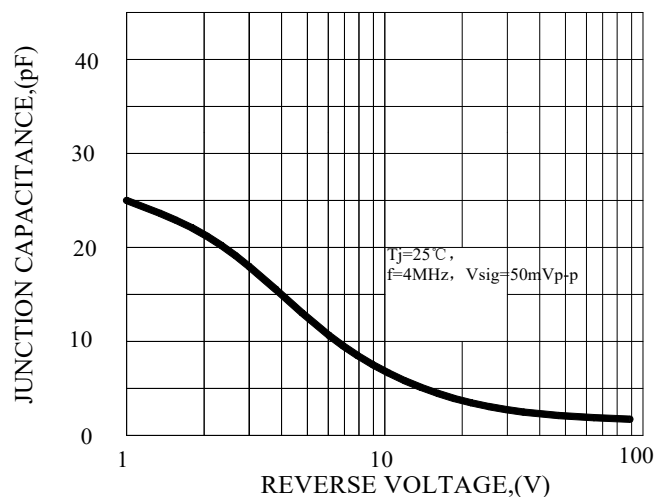


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



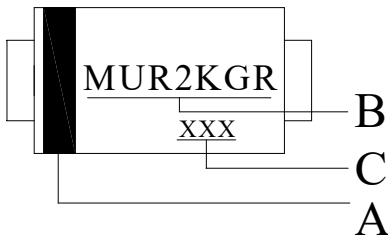
NOTES: 1. Rise Time=7ns max, Input Impedance= 1 megohm. 22pF.
2. Rise Time=10ns max, Source Impedance= 50 ohms.

FIG.6-TYPICAL JUNCTION CAPACITANCE



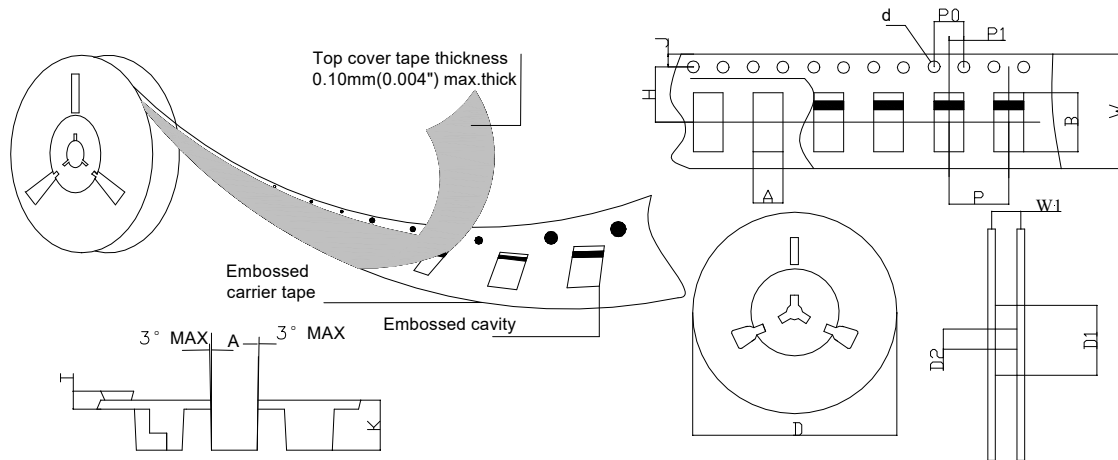
Marking and packaging illustration

1、Marking



SYMBOL	Explanation
A	Color Band Denotes Cathode
B	Product Name
C	Date Code

2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	SMB (DO-214AA)	ITEM	SYM BOL	SMB (DO-214AA)
Carrier width	A	3.81(0.150)Max	Carrier depth	K	2.45(0.965)Typ
Carrier length	B	5.41(0.213)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(13.0)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			