

### SUPER FAST RECTIFIER

VOLTAGE RANGE: 50 --- 600 V  
CURRENT: 4.0 A

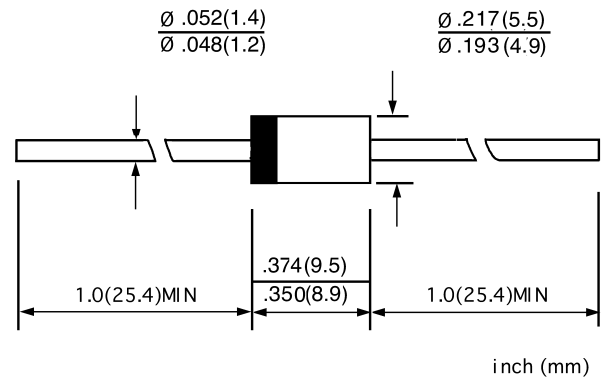
#### FEATURES

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

#### MECHANICAL DATA

- ◇ Case: JEDEC DO--27, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL- STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any

#### DO - 27



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

		MUR 405	MUR 410	MUR 415	MUR 420	MUR 430	MUR 440	MUR 450	MUR 460	UNITS
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current 9.5mm lead length, @T <sub>A</sub> =75℃	I <sub>F(AV)</sub>	4.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T <sub>J</sub> =125℃	I <sub>FSM</sub>	125.0								A
Maximum instantaneous forward voltage @ 4.0A	V <sub>F</sub>	0.89				1.28				V
Maximum reverse current @T <sub>A</sub> =25℃ at rated DC blocking voltage @T <sub>A</sub> =100℃	I <sub>R</sub>	10.0 100.0								μ A
Maximum reverse recovery time (Note1)	t <sub>rr</sub>	25				50				ns
Typical junction capacitance (Note2)	C <sub>J</sub>	95								pF
Typical thermal resistance (Note3)	R <sub>θJA</sub>	20								℃/W
Operating junction temperature range	T <sub>J</sub>	- 55 ----- + 150								℃
Storage temperature range	T <sub>STG</sub>	- 55 ----- + 150								℃

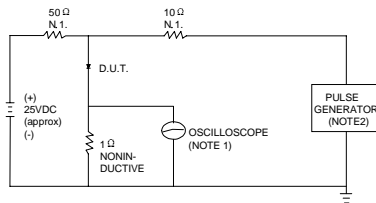
NOTE: 1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $t_{rr}=0.25\text{A}$ .

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

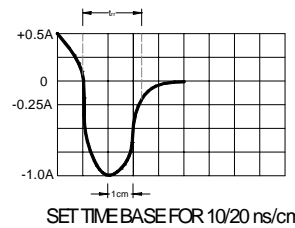
3. Thermal resistance from junction to ambient.

www.galaxycn.com

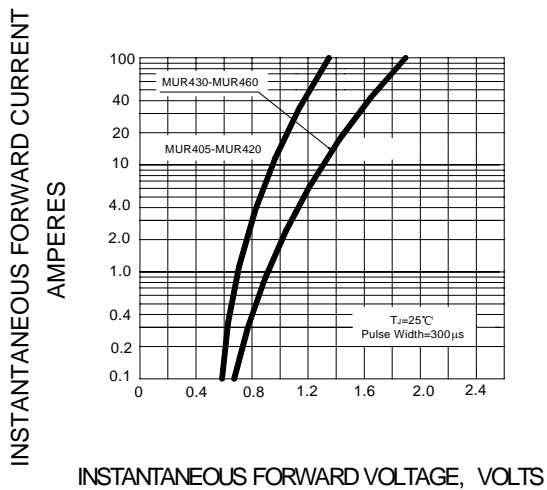
**FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



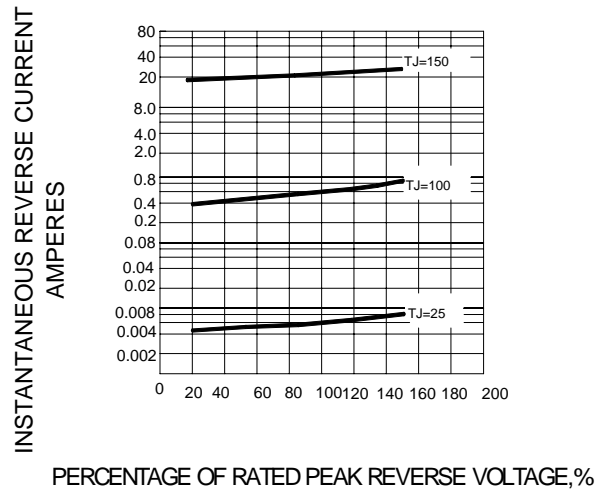
NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ, 22pF.  
2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.



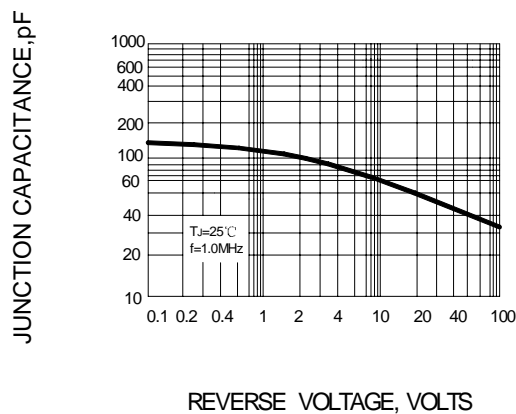
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – TYPICAL REVERSE CHARACTERISTIC**



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**



**FIG.5-FORWARD DERATING CURVE**

