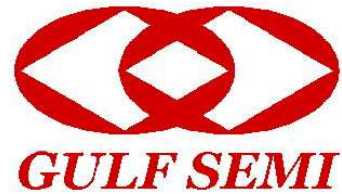


# MUR105S THRU MUR1100S

## ULTRAFAST EFFICIENT PLASTIC SILICON RECTIFIER

Voltage: 50 to 1000V

Current: 1.0A



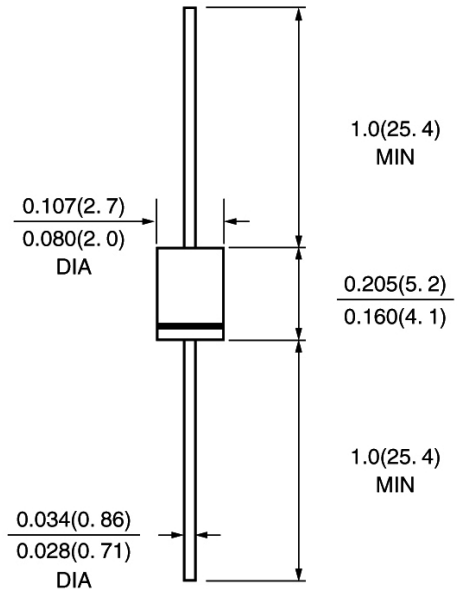
### FEATURE

Low power loss  
High surge capability  
Glass passivated chip junction  
Ultra-fast recovery time for high efficiency  
High temperature soldering guaranteed  
250°C/10sec/0.375" lead length at 5 lbs tension

### MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any

### DO - 41\DO - 204AL



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

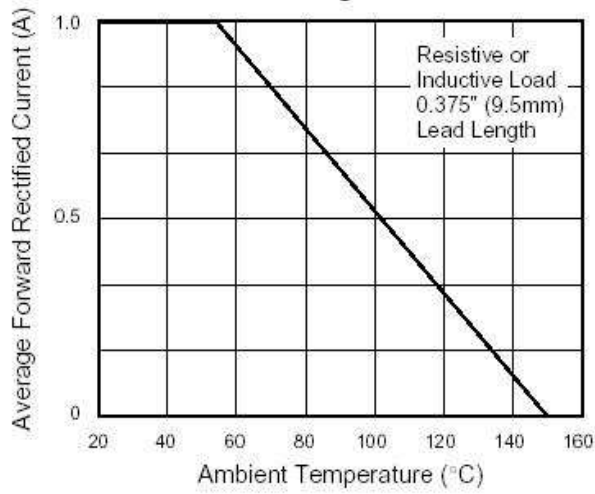
	Symbol	MUR 105S	MUR 110S	MUR 120S	MUR 130S	MUR 140S	MUR 160S	MUR 180S	MUR 1100S	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V <sub>rms</sub>	35	70	140	210	280	420	560	700	V
Maximum DC blocking Voltage	V <sub>dc</sub>	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8" lead length at Ta =55°C	I <sub>f(av)</sub>	1.0								A
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	I <sub>fsm</sub>	35.0								A
Maximum Instantaneous Forward Voltage at Rated forward current	V <sub>f</sub>	0.875		1.25			1.75			V
Maximum DC Reverse Current Ta =25°C At rated DC blocking voltage Ta =125°C	I <sub>r</sub>	10.0 100.0								μA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	25		50			75			nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	25								pF
Typical Thermal Resistance (Note 3)	R <sub>th(ja)</sub>	27			50					°C /W
Storage and Operating Junction Temperature	T <sub>stg</sub> , T <sub>j</sub>	-55 to +150								°C

Note:

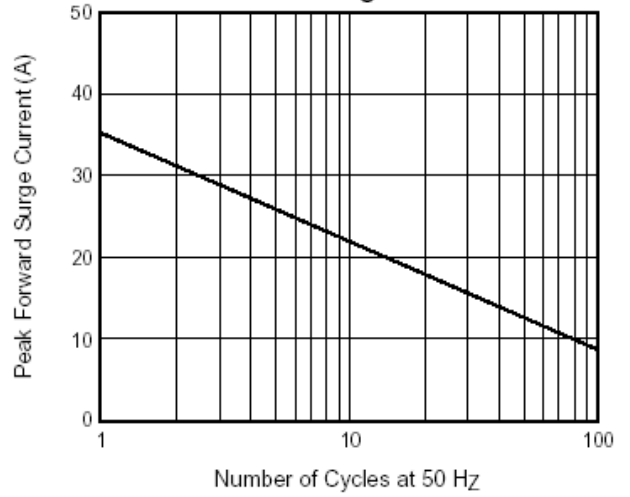
1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8" lead length, P.C. Board Mounted

**RATINGS AND CHARACTERISTIC CURVES MUR120S THRU MUR1100S**

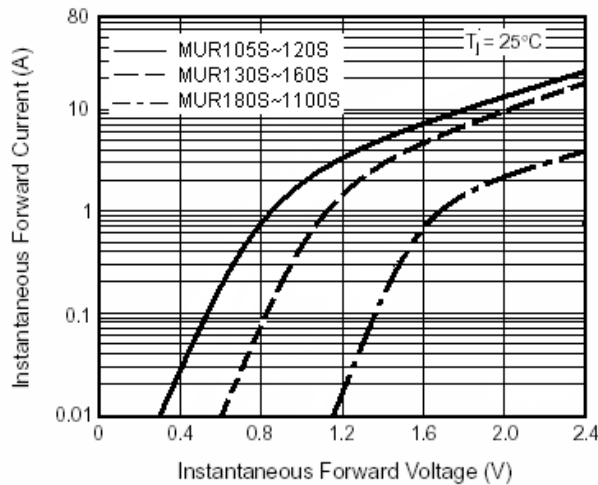
**Fig. 1 – Forward Current Derating Curve**



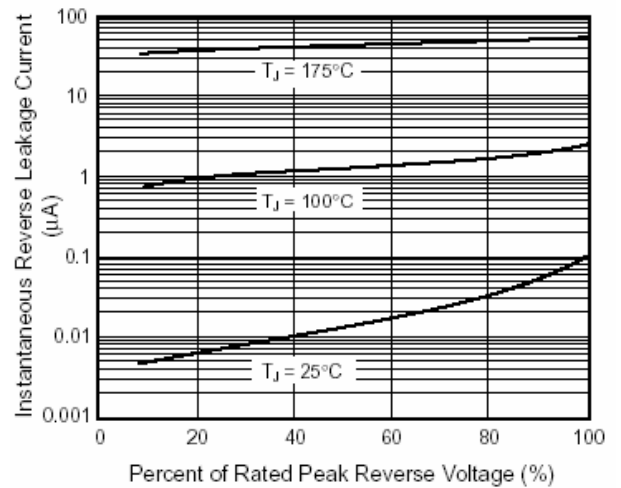
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Leakage Characteristics**



**Fig. 5 – Typical Junction Capacitance**

