

# GRTA - GRTM

# GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIERS

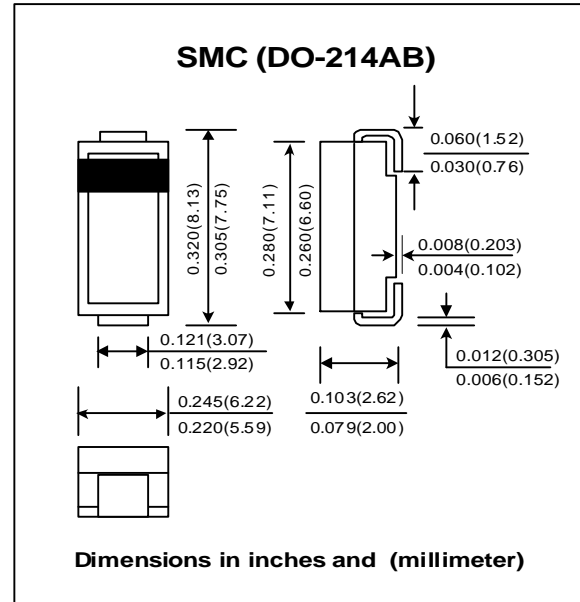
**PRV : 50 - 1000 Volts**  
**Io : 2.5 Amperes**

### FEATURES :

- \* Glass passivated chip
- \* High current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency

### MECHANICAL DATA :

- \* Case : SMC Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.21 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

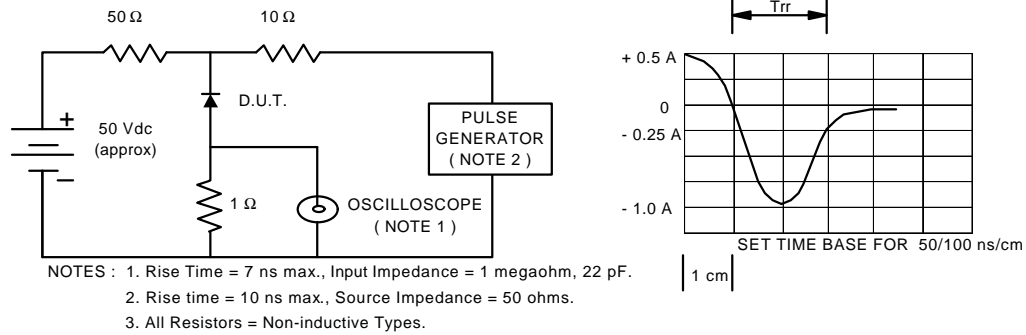
RATING	SYMBOL	GRTA	GRTB	GRTD	GRTG	GRTJ	GRTK	GRTM	UNIT	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V	
Maximum Average Forward Current Ta = 75 °C	IF(AV)	2.5								A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave superimposed on rated load (JEDEC Method)	IFSM	80								A
Maximum Peak Forward Voltage at IF = 2.5 A	VF	1.3								V
Maximum DC Reverse Current Ta = 25 °C	IR	10								µA
at Rated DC Blocking Voltage Ta = 100 °C	IR(H)	500								µA
Maximum Reverse Recovery Time ( Note 1 )	Trr	150			250		500		ns	
Typical Junction Capacitance ( Note 2 )	CJ								pf	
Junction Temperature Range	TJ	- 65 to + 150							°C	
Storage Temperature Range	TSTG	- 65 to + 150							°C	

### Notes :

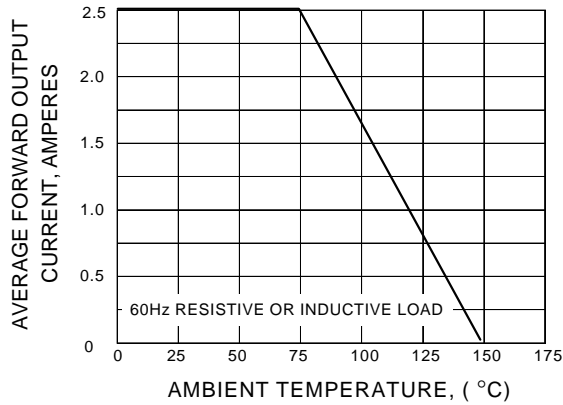
- ( 1 ) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

## RATING AND CHARACTERISTIC CURVES ( GRTA - GRTM )

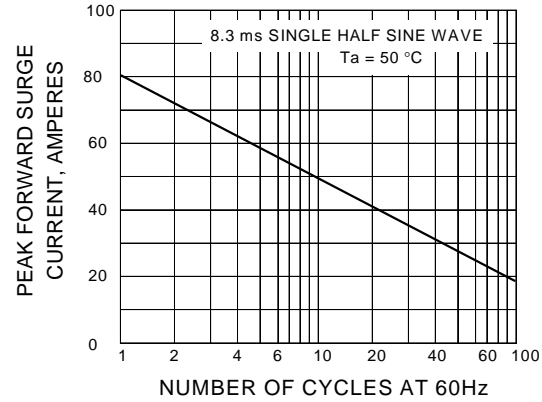
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



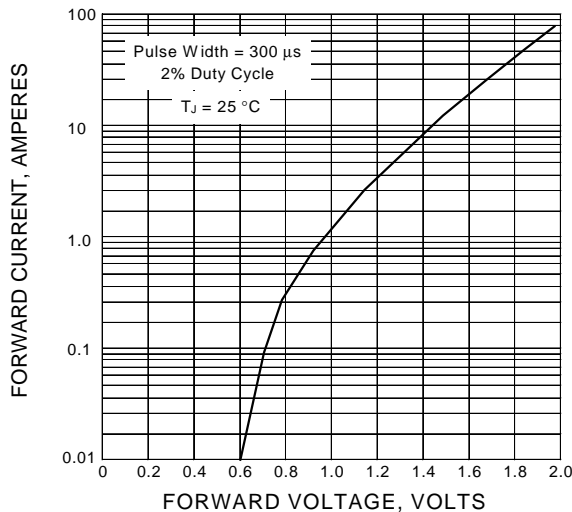
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

