



RGF10A THRU RGF10M

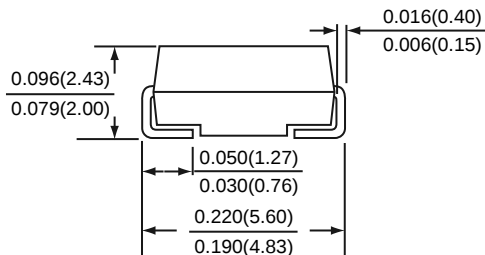
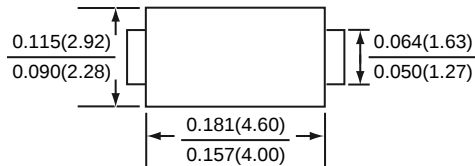
SURFACE MOUNT GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

PATENTED

SMA/DO-214AC



*Dimensions in inches and (millimeters)

SUPEREX II™



FEATURES

- * GPRC (Glass Passivated Rectifier Chip) inside
- * Glass passivated cavity-free junction
- * Ideal for surface mount automated applications
- * Fast switching for high efficiency
- * Built-in strain relief
- * Easy pick and place
- * High temperature soldering guaranteed: 250°C/10 seconds, at terminals
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic over passivated chip

Terminals : Solder plated , solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Weight : 0.002 ounces , 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	RGF10										UNITS
		A	B	D	G	J	JA	K	KA	M	MA	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	600	800	800	1000	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	420	560	560	700	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	600	800	800	1000	1000	Volts
Maximum average forward rectified current $T_L=100^{\circ}\text{C}$	I (AV)	1.0										Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30										Amps
Maximum instantaneous forward voltage at 1.0 A	VF	1.3										Volts
Maximum full load reverse current, full cycle average , 0.375" (9.5mm) lead lengths at $T_A=55^{\circ}\text{C}$	IR (AV)	100										uA
Maximum DC reverse current $T_A=25^{\circ}\text{C}$ $T_A=125^{\circ}\text{C}$ at rated DC blocking voltage $T_A=150^{\circ}\text{C}$	IR	5 30 50										uA
Maximum reverse recovery time (NOTE 1)	trr	150				250	150	500	300	500	300	nS
Typical junction capacitance (NOTE 2)	CJ	15										pF
Typical thermal resistance (NOTE 3)	$\frac{R}{\theta_{JA}}$ $\frac{R}{\theta_{JL}}$	105 32										°C / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +175										°C

NOTES : (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 4.0 Volts

(3) Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES RGF10A THRU RGF10M

FIG.1 - FORWARD CURRENT DERATING CURVE

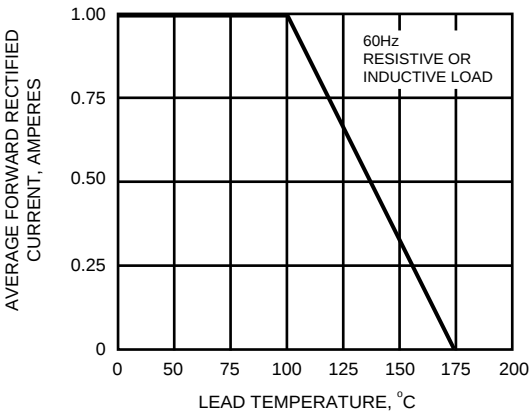


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

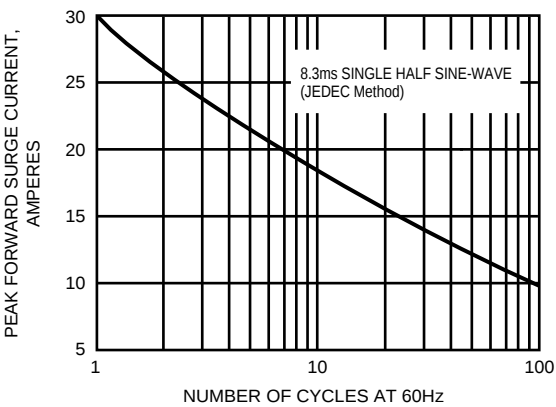


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

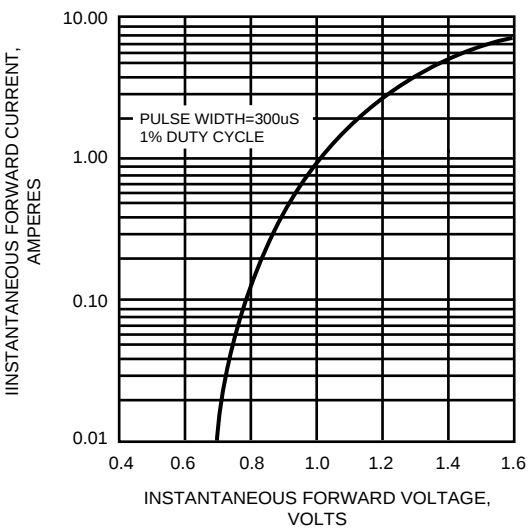


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

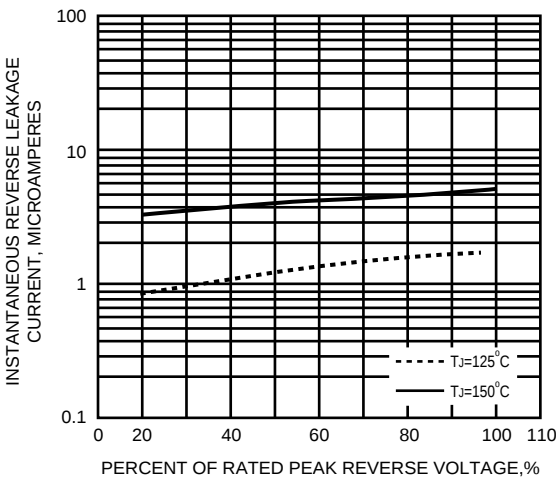


FIG.5 - TYPICAL JUNCTION CAPACITANCE

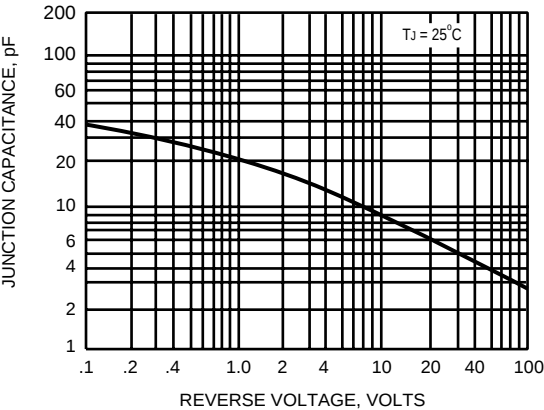


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

