

# PG100R~PG1010R

## GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIERS

**VOLTAGE** 50 to 1000 Volt **CURRENT** 1 Ampere

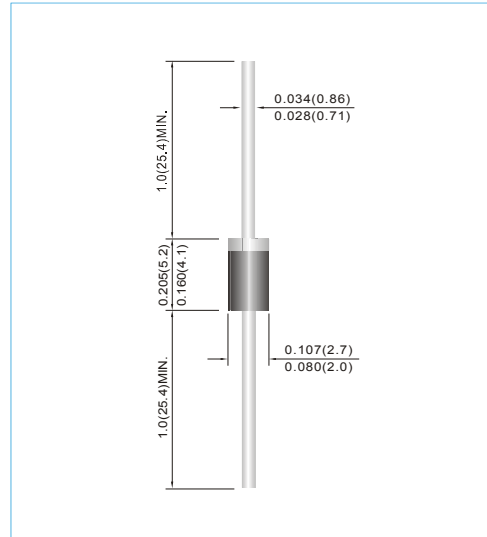
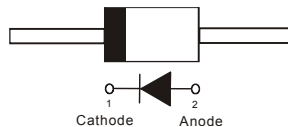
**DO-41** Unit : inch(mm)

### FEATURES

- High current capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Low leakage.
- Fast switching for high efficiency.
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)

### MECHANICAL DATA

- Case: Molded plastic, DO-41
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0118 ounce, 0.336 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	PG100R	PG101R	PG102R	PG104R	PG106R	PG108R	PG1010R	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>F(AV)</sub>	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30							A
Maximum Forward Voltage at 1A	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current at at Rated DC Blocking Voltage T <sub>J</sub> =25°C T <sub>J</sub> =100°C	I <sub>R</sub>	1 100							μA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	12							pF
Maximum Reverse Recovery Time	t <sub>rr</sub>	150				250	500		ns
Typical Thermal Resistance	R <sub>BJA</sub>	67							°C / W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

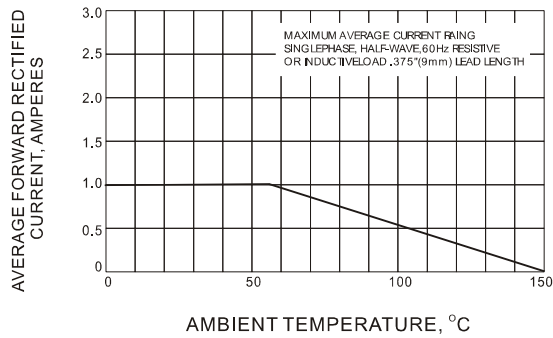
NOTES:1. Reverse recovery test conditions:  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$

2. Measured at 1 MHz and applied reverse voltage of 4 VDC

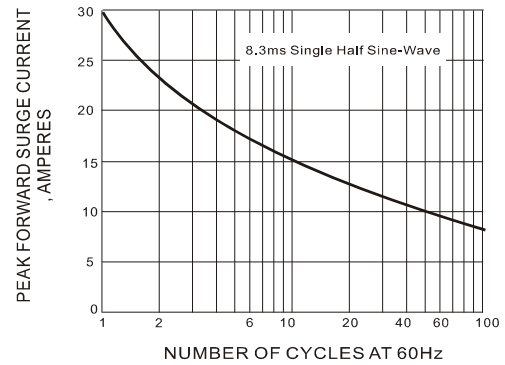
3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

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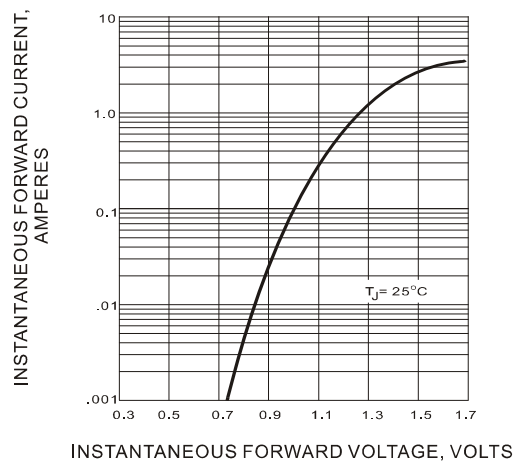
## RATING AND CHARACTERISTIC CURVES



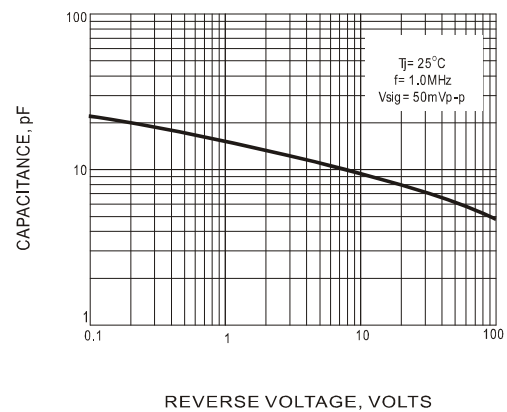
**Fig.1 FORWARD CURRENT DERATING CURVE**



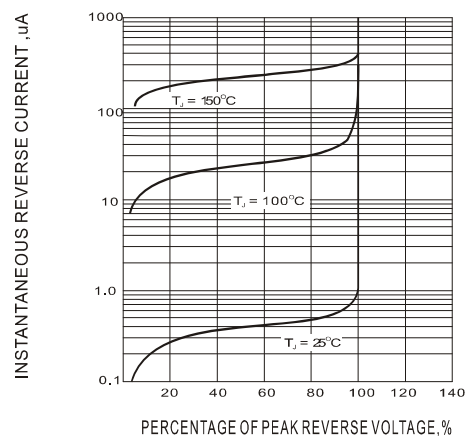
**Fig.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**Fig.4 TYPICAL JUNCTION CAPACITANCE**



**Fig.5-TYPICAL REVERSE CHARACTERISTIC**



## PG100R~PG1010R

### Part No\_packing code\_Version

PG100R\_AY\_00001

PG100R\_AY\_10001

PG100R\_B0\_00001

PG100R\_B0\_10001

PG100R\_R2\_00001

PG100R\_R2\_10001

For example :

**RB500V-40\_R2\_00001**

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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