PR1004G-PR1007G(LS)

FAST RECOVERY GLASS PASSIVATED RECTIFIERS

REVERSE VOLTAGE – 400 to 1000 Volts FORWARD CURRENT – 1.0 Amperes

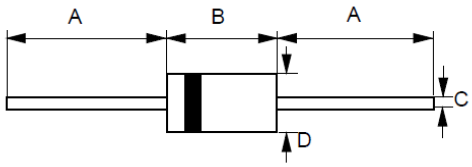
FEATURES

- Fast switching for high efficiency
- Glass passivated chip
- Low reverse leakage current
- Low forward voltage drop.
- High current capability
- Plastic material has UL flammability classification 94V-0
- Available in "Green" Package: DO-41
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: JEDEC DO-41 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.34 grams
- Mounting position: Any

DO-41



DO-41		
Dim	Min.	Max.
A	25.4	--
B	4.10	5.20
C	0.71ø	0.86ø
D	2.00ø	2.70ø
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	PR1004G	PR1005G	PR1006G	PR1007G	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_A=55°C	$I_{(AV)}$	1.0				A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I_{FSM}	30				A
Maximum Forward Voltage at 1.0A DC	V_F	1.3				V
Maximum DC Reverse Current @T_A=25°C at Rated DC Blocking Voltage @T_A=100°C	I_R	5.0 50				uA
Typical Junction Capacitance (Note 4)	C_T	15				pF
Typical Thermal Resistance (Note 5)	R_{thJA} R_{thJL} R_{thJC}	50 15 20				°C/W
Maximum Reverse Recovery Time (Note 6)	t_{rr}	150	250		500	ns
Operating Temperature Range	T_J	-55 to +150				°C
Storage Temperature Range	T_{STG}	-55 to +150				°C

Note:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
5. Thermal Resistance Junction to Ambient, Lead and Case.
6. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, I_{rr}=0.25A.

RATING AND CHARACTERISTIC CURVES
PR1004G-PR1007G(LS)

FIG.1 - FORWARD CURRENT DERATING CURVE

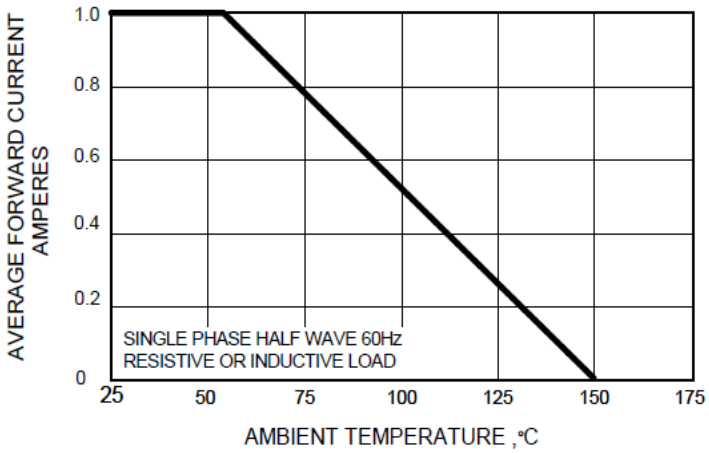


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

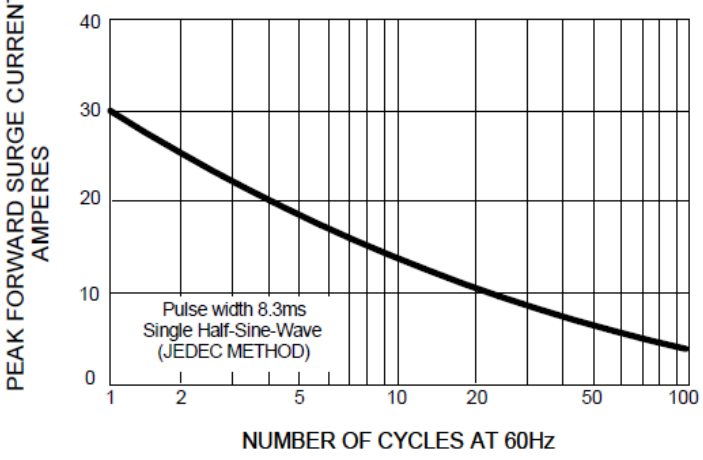


FIG.3 - TYPICAL JUNCTION CAPACITANCE

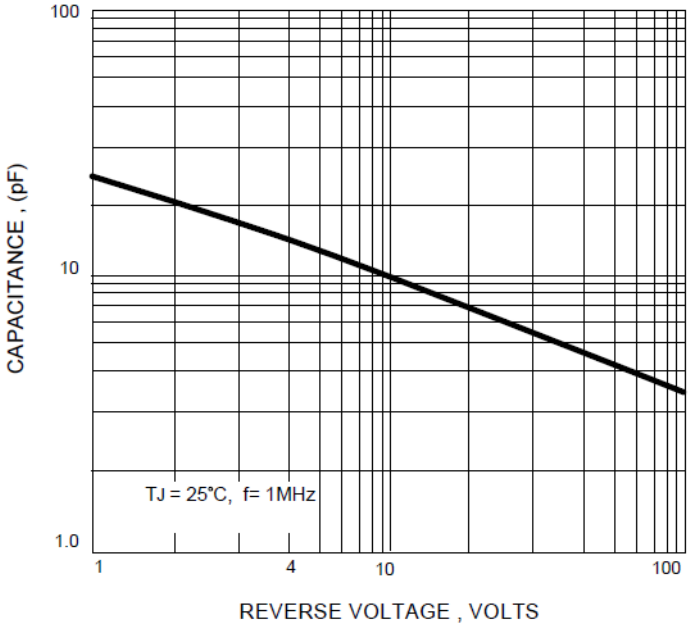
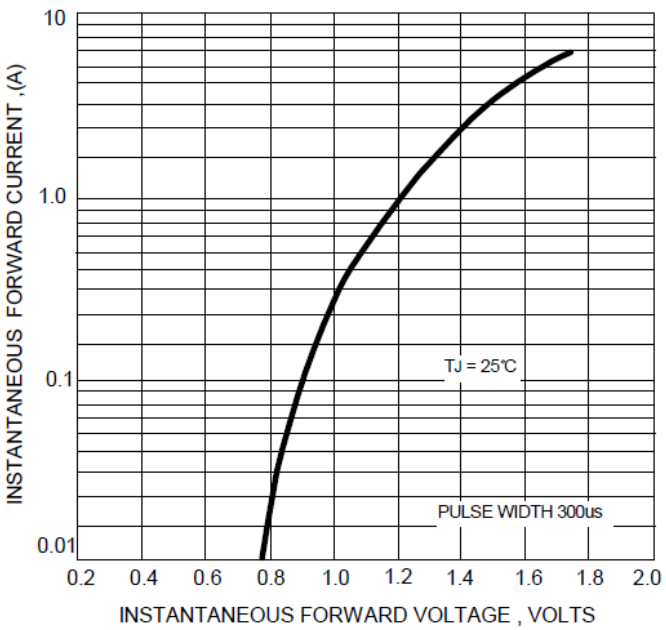


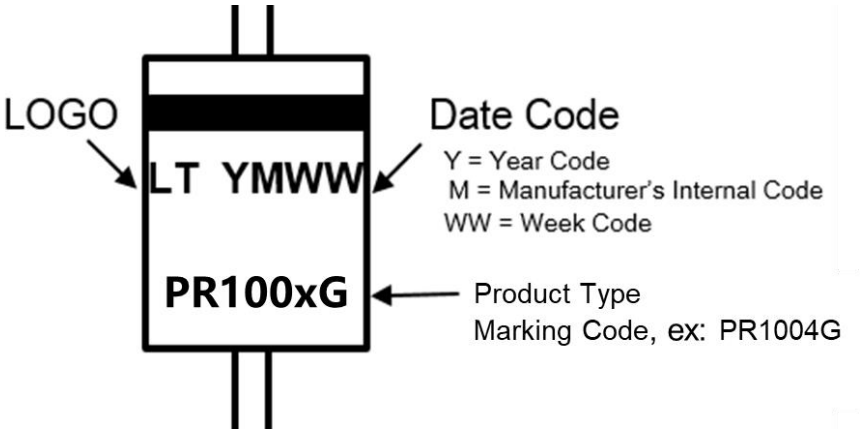
FIG.4 - TYPICAL FORWARD CHARACTERISTICS



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
PR1004G_HF	DO-41	5000	Reel
PR1005G_HF	DO-41	5000	Reel
PR1006G_HF	DO-41	5000	Reel
PR1007G_HF	DO-41	5000	Reel
PR1004G_HF-A52	DO-41	3000	Ammo 52
PR1006G_HF-A52	DO-41	3000	Ammo 52
PR1007G_HF-A52	DO-41	3000	Ammo 52

Marking Information:



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