

CGR1A7-HF

Reverse Voltage: 1000 V

Forward Current: 1.0 A

RoHS Device

Halogen Free

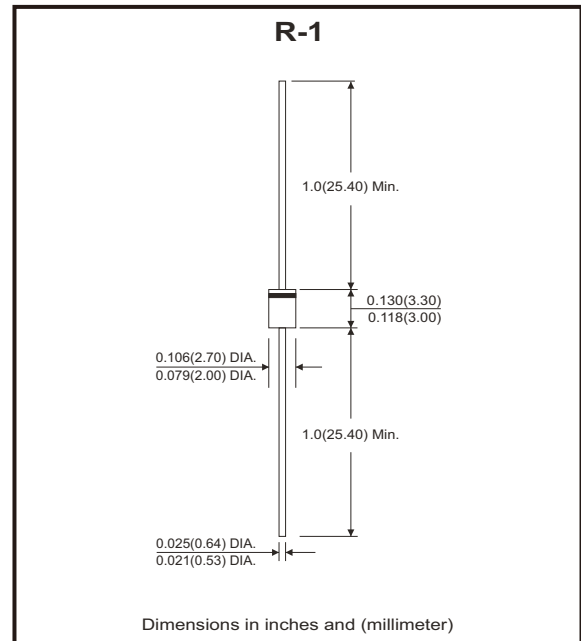


Features

- High efficiency.
- High current capability.
- High reliability.
- High surge current capability.
- Low power loss.
- Glass passivated chip junction.
- Solder dip 275°C max. 7 s, per JESD22-B106.

Mechanical data

- Case: Molded plastic, R-1.
- Epoxy: UL 94V-0 rate flame retardant.
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102.
- Polarity: Color band denotes cathode end.
- Weight: 0.2 grams (approx.).



Circuit Diagram



Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V _{RRM}	1000	V
Average forward current @60Hz sine wave, resistance load, Ta=75°C	I _{F(AV)}	1.0	A
Surge (non-repetitive) forward current @60Hz half-sine wave, 1 cycle, Ta=25°C	I _{FSM}	30	A
Thermal resistance (Typical)	R _{θJA}	95	°C/W
Junction temperature range	T _J	-55 to +150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Instantaneous forward voltage drop per diode	I _{FM} = 1.0A	V _{FM}			1.1	V
DC reverse current at rated DC blocking voltage per diode	T _A = 25°C	I _{RRM}			2.5	μA
	T _A = 125°C				50	
Junction capacitance	V _R = 4V, f = 1.0MHz	C _J		12		pF

Rating and Characteristic Curves (CGR1A7-HF)

Fig.1 - I_o — T_A Curve

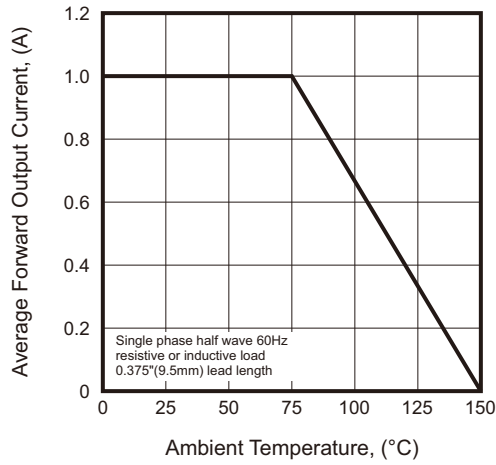


Fig.2 - Surge Forward Current Capability

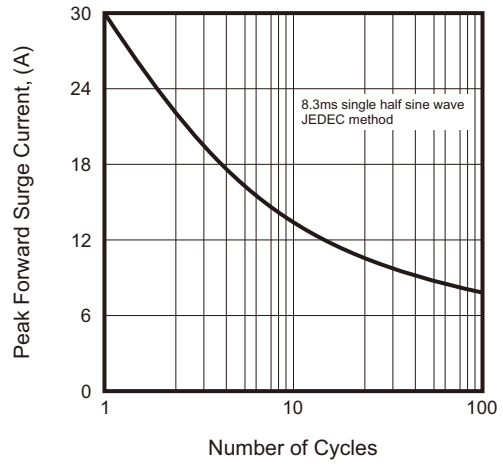


Fig.3 - Forward Voltage

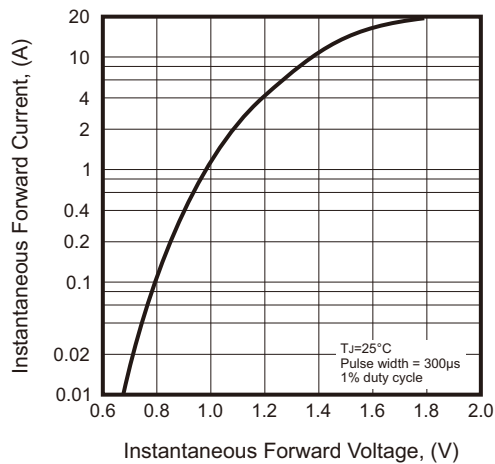
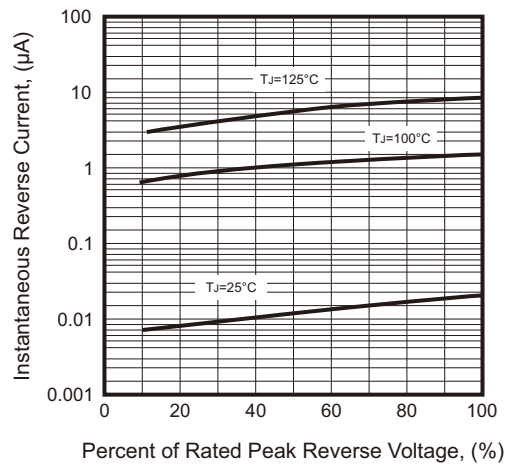
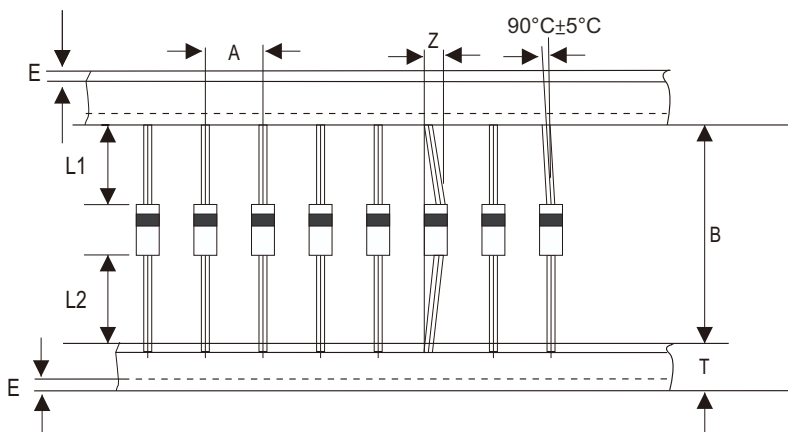


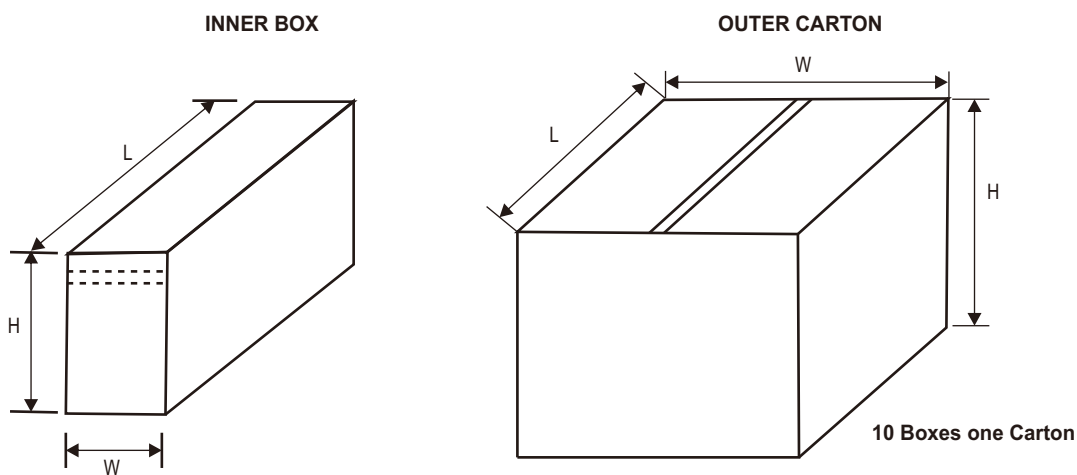
Fig.4 - Typical Reverse Characteristics



Taping Specification For Axial Lead Diodes



R-1	SYMBOL	A	B	Z	T	E	L1 - L2
	(mm)	5.00 ± 0.50	52.4 ± 1.5	1.2 (max)	6.0 ± 0.4	0.8 (max)	1.0 (max)
	(inch)	0.197 ± 0.020	2.063 ± 0.059	0.047 (max)	0.236 ± 0.016	0.031 (max)	0.039 (max)



ITEM	SYMBOL	L	W	H
INNER BOX	(mm)	258 ± 3	79 ± 3	120 ± 3
	(inch)	10.157 ± 0.118	3.110 ± 0.118	4.724 ± 0.118
OUTER CARTON	(mm)	430 ± 3	290 ± 3	280 ± 3
	(inch)	16.929 ± 0.118	11.417 ± 0.118	11.024 ± 0.118

Marking Code

Part Number	Marking Code
CGR1A7-HF	1A7G



Standard Packaging

Case Type	AMMO PACK
	BOX (pcs)
R-1	5,000