

FR601G THRU FR607G



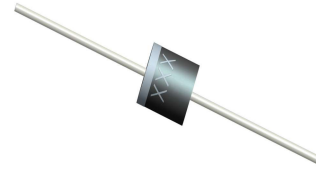
Fast Recovery Glass Passivated Rectifiers

Reverse Voltage: 50 to 1000 Volts

Forward Current: 6.0 Ampere

RoHS Device

Halogen Free

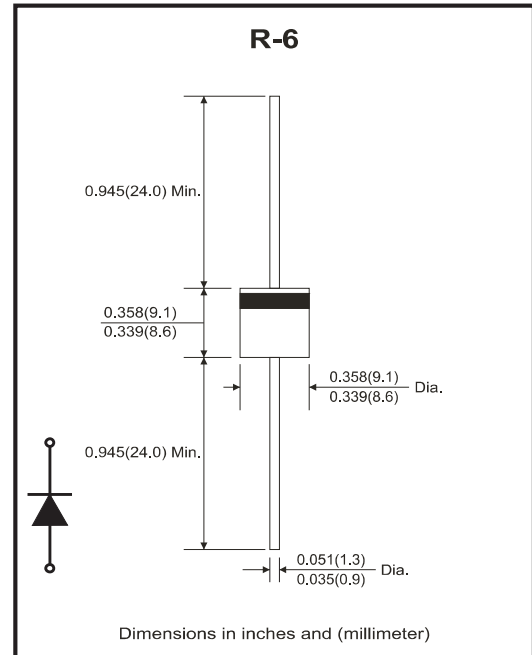


Features

- Glass passivated chip.
- Open junction chip.
- Low reverse leakage.
- High forward surge current capability.
- High temperature soldering guaranteed 250°C/10 seconds at terminals.

Mechanical data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: R-6, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode.
- Mounting position: Any.



Maximum Ratings and Electrical Characteristics

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

or capacitive load derate current by 20%.

Parameter	Symbol	FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	FR607G	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T _L =100°C	I _(AV)	6.0							A
Peak forward surge current, 8.3ms single half sine-wave super imposed on rated load	I _{FSM}	300							A
Max. instantaneous forward voltage at 6.0A	V _F	1.3							V
Max. DC reverse current at rated DC blocking voltage	I _R	10 200							μA
Maximum reverse recovery time (Note 1)	t _{rr}	150				250	500		nS
Typical junction capacitance (Note 2)	C _J	150							pF
Typical thermal resistance (Note 3)	R _{θJA}	10							°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 ~ +150							°C

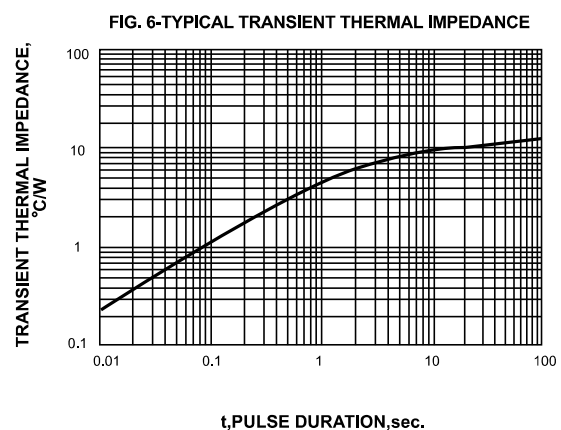
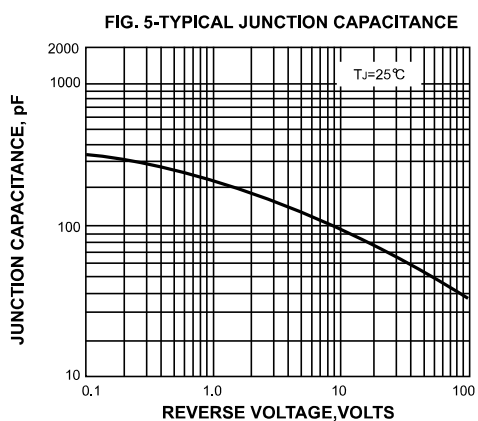
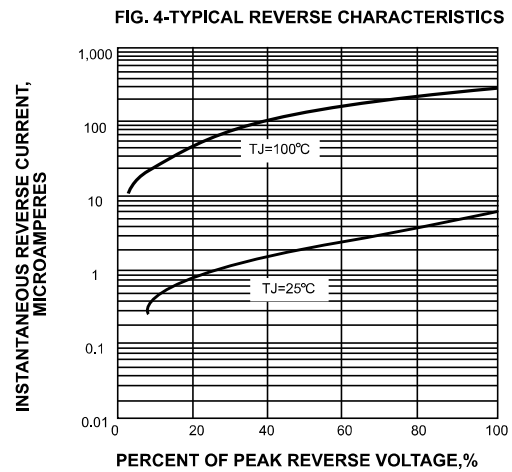
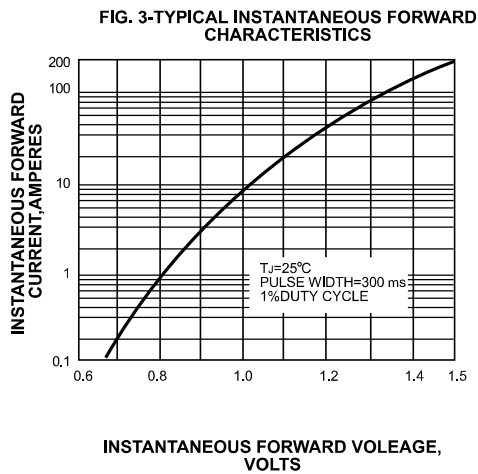
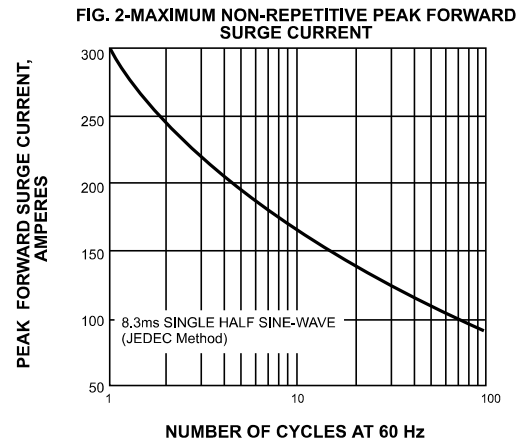
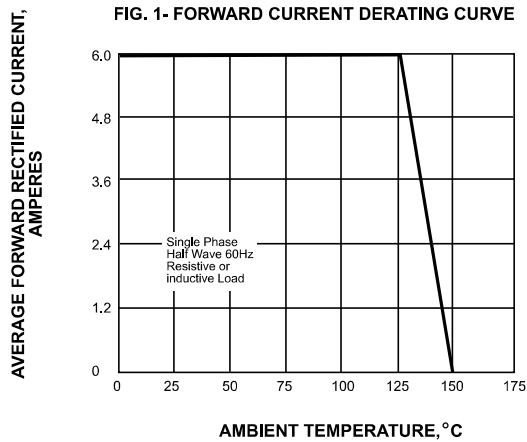
Notes: 1. Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1\text{A}$ $t_{rr}=0.25\text{A}$.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

Company reserves the right to improve product design , functions and reliability without notice.

Rev:1.0

Rating and Characteristic Curves



Marking Code

Part Number	Marking code	Packaging
FR601G	FR601G	AMMO
FR602G	FR602G	AMMO
FR603G	FR603G	AMMO
FR604G	FR604G	AMMO
FR605G	FR605G	AMMO
FR606G	FR606G	AMMO
FR607G	FR607G	AMMO
FR601GT	FR601G	REEL
FR602GT	FR602G	REEL
FR603GT	FR603G	REEL
FR604GT	FR604G	REEL
FR605GT	FR605G	REEL
FR606GT	FR606G	REEL
FR607GT	FR607G	REEL
FR601GB	FR601G	BULK
FR602GB	FR602G	BULK
FR603GB	FR603G	BULK
FR604GB	FR604G	BULK
FR605GB	FR605G	BULK
FR606GB	FR606G	BULK
FR607GB	FR607G	BULK



XXX = Product type marking code

Note:

1) Suffix code after part number to specify packaging item .

Packaging	Code
AMMO PACK	NA
REEL PACK	T
BULK PACK	B

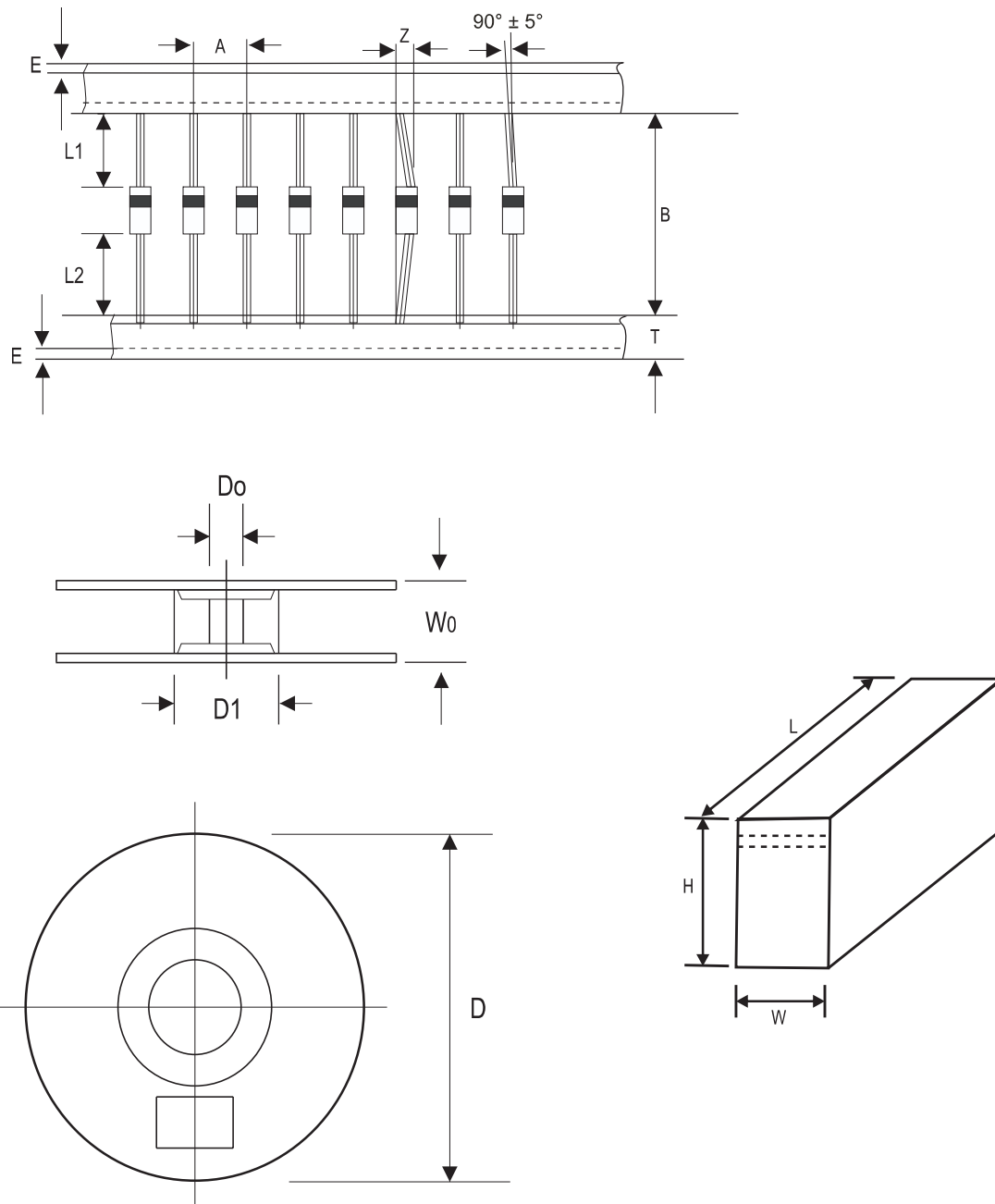
Standard Packaging

Case Type	AMMO PACK
	BOX (pcs)
R-6	500

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
R-6	500	13

Case Type	BULK PACK
	BOX (pcs)
R-6	200

Taping Specification For Axial Lead Diodes



R-6	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	10.00 ± 0.50	52.40 + 1.50 - 0.40	1.20 (max)	6.00 ± 0.40	0.80 (max)	1.00 (max)
	(inch)	0.394 ± 0.020	2.063 + 0.059 - 0.016	0.047 (max)	0.236 ± 0.016	0.031 (max)	0.039 (max)

R-6	SYMBOL	D1	D0	D	W0	L	W	H
	(mm)	85.70 ± 0.30	16.60 ± 0.40	330.00	79.00 ± 1.00	255.00 ± 5.00	75.00 ± 5.00	150.00 ± 5.00
	(inch)	3.374 ± 0.012	0.654 ± 0.016	12.992	3.110 ± 0.039	10.039 ± 0.197	2.953 ± 0.197	5.906 ± 0.197

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