

FR151 THRU FR157



Fast Recovery Rectifiers

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.5 Ampere

RoHS Device

Halogen Free

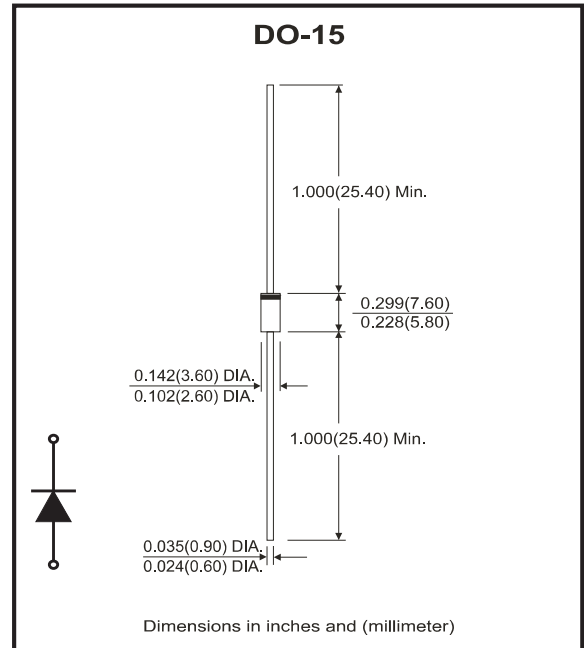


Features

- Low forward voltage.
- High reliability.
- High surge current capability.
- High current capability.

Mechanical data

- Case: JEDEC DO-15 molded plastic.
- Epoxy: UL94V-0 rate flame retardant.
- Polarity: Color band denotes cathode end.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- 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 by 20%

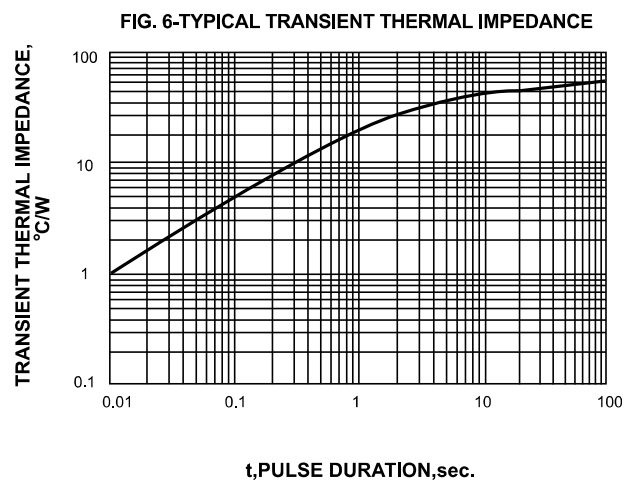
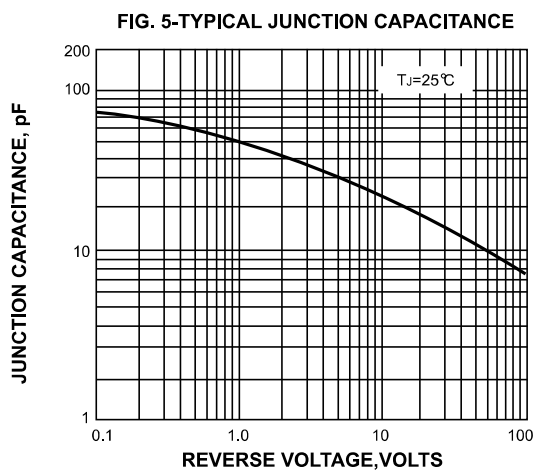
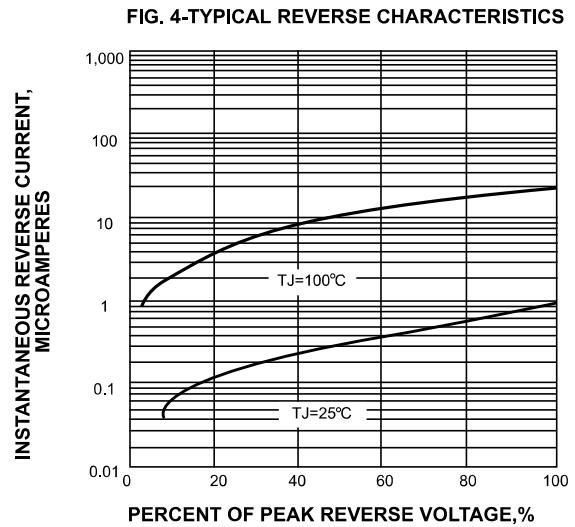
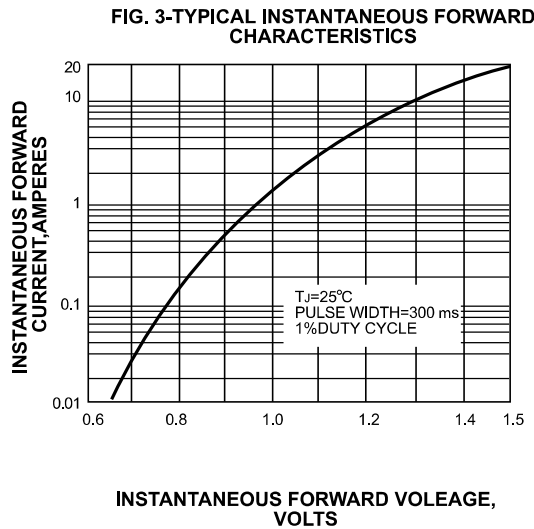
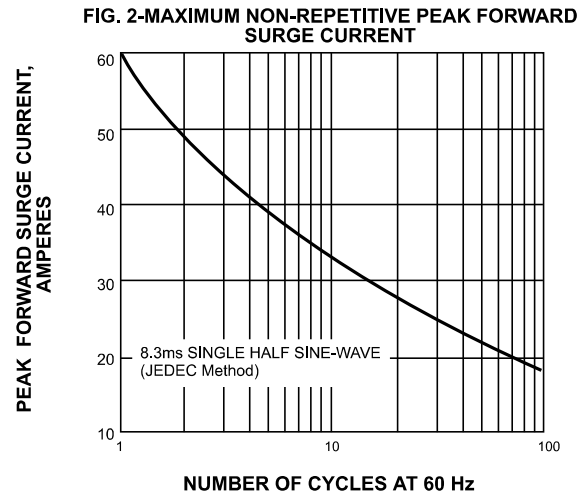
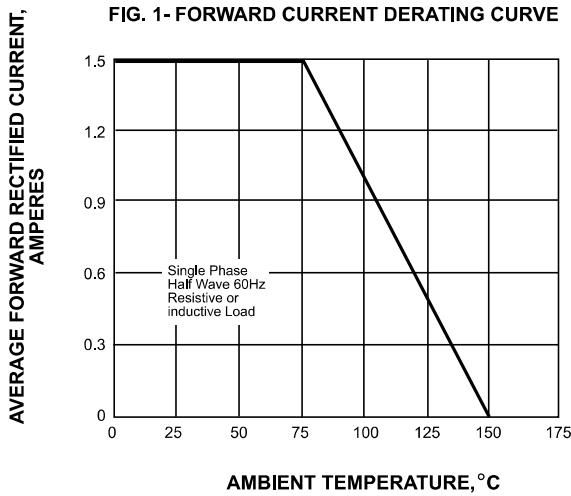
Parameter	Symbols	FR151	FR152	FR153	FR154	FR155	FR156	FR157	Units
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I _{F(AV)}	1.5							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	60							A
Max. forward voltage at 1.5A	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 50							μA
Typical junction capacitance (Note 2)	C _j	30							pF
Maximum reverse recovery time (Note 1)	t _{rr}	150				250	500		ns
Typical thermal resistance (Note 3)	R _{θJA}	50							°C/W
Operating and storage temperature range	T _j , T _{stg}	-65 ~ +150							°C

Notes: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

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
FR151	FR151	AMMO
FR152	FR152	AMMO
FR153	FR153	AMMO
FR154	FR154	AMMO
FR155	FR155	AMMO
FR156	FR156	AMMO
FR157	FR157	AMMO
FR151T	FR151	REEL
FR152T	FR152	REEL
FR153T	FR153	REEL
FR154T	FR154	REEL
FR155T	FR155	REEL
FR156T	FR156	REEL
FR157T	FR157	REEL
FR151B	FR151	BULK
FR152B	FR152	BULK
FR153B	FR153	BULK
FR154B	FR154	BULK
FR155B	FR155	BULK
FR156B	FR156	BULK
FR157B	FR157	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

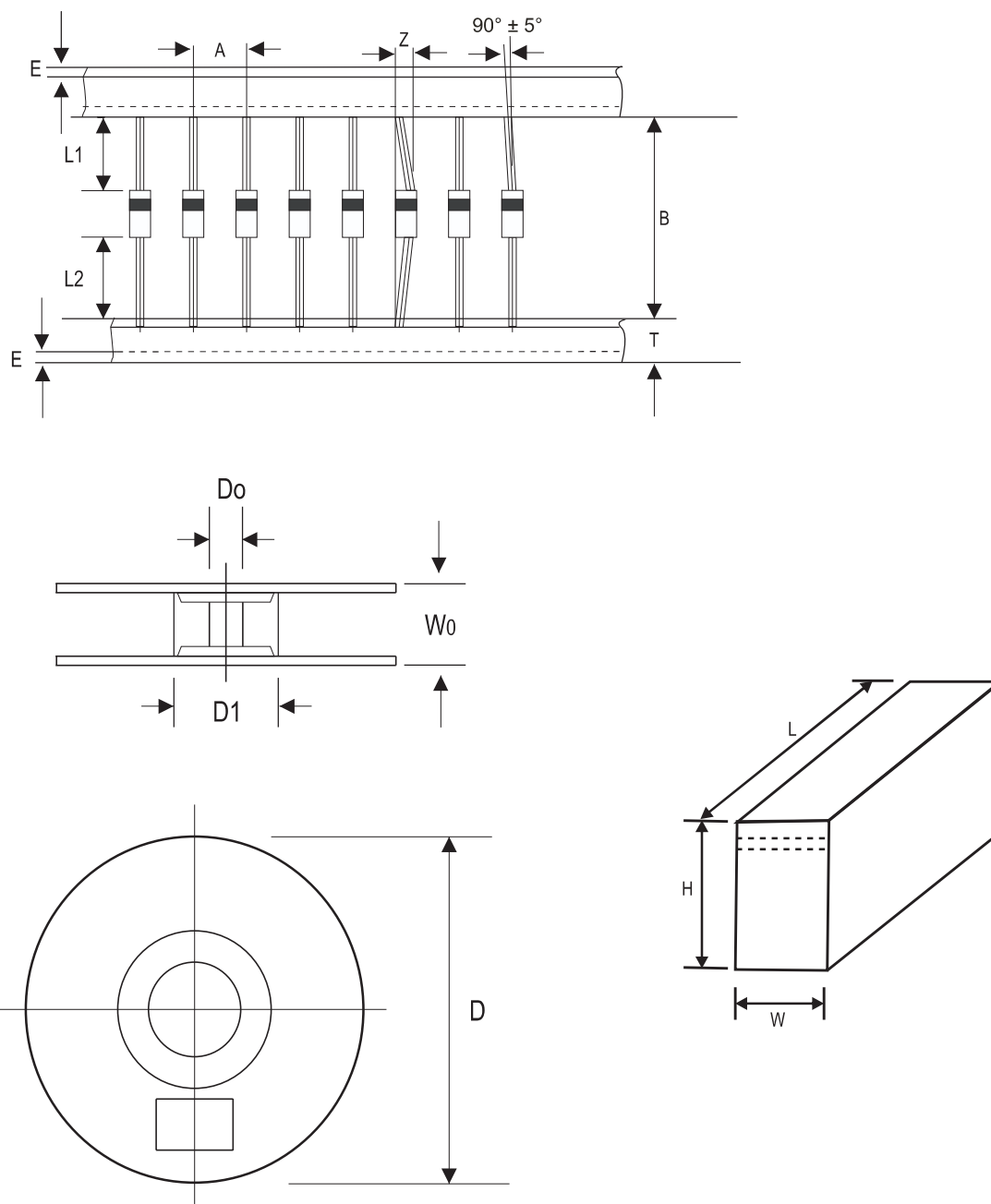
Standard Packaging

Case Type	AMMO PACK
	BOX (pcs)
DO-15	3,000

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-15	4,000	13

Case Type	BULK PACK
	BOX (pcs)
DO-15	500

Taping Specification For Axial Lead Diodes



DO-15	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	5.00 ± 0.50	52.40 + 1.50 - 0.40	1.20 (max)	6.00 ± 0.40	0.80 (max)	1.00 (max)
	(inch)	0.197 ± 0.020	2.063 + 0.059 - 0.016	0.047 (max)	0.236 ± 0.016	0.031 (max)	0.039 (max)

DO-15	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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