

FR151 THRU FR157

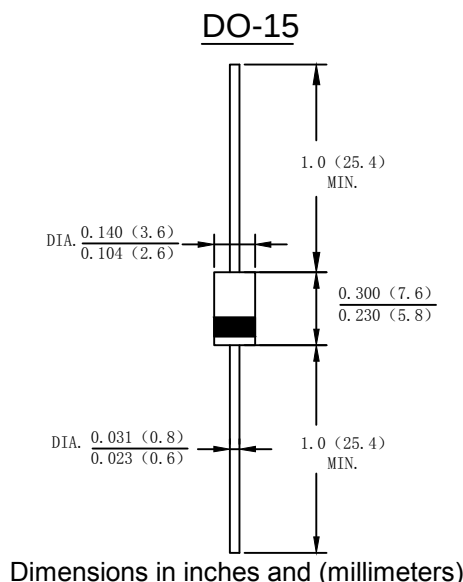
1.5 AMP.Fast Plastic silicon Recovery Rectifiers

Features

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

Mechanical Data

- Case: Molded plastic DO-15
- Terminals: Axial leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	FR151	FR152	FR153	FR154	FR155	FR156	FR157	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RM}	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
Average Rectified Output Current (Note 1) @T _L =100 °C	I _{F(AV)}	1.5							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50							A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	10.375							A ² s
Forward Voltage @IF=1.5A	V _{FM}	1.3							V
Peak Reverse Current @T _A =25 °C	I _R	5.0							uA
At Rated DC Blocking Voltage @T _A =125 °C		100							
Maximum Reverse Recovery Time (Note2)	T _{RR}	150				250	500		nS
Typical Junction Capacitance (Note 3)	C _j	30				20			pF
Typical Thermal Resistance Junction to Ambient	R _{θJA}	65							°C/W
Operating Temperature Range	T _j	-65 to + 125							°C
Storage Temperature Range	T _{STG}	-65 to + 150							°C

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2.Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $IRR = 0.25A$.

3. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

FIG. 1 – FORWARD CURRENT DERATING CURVE

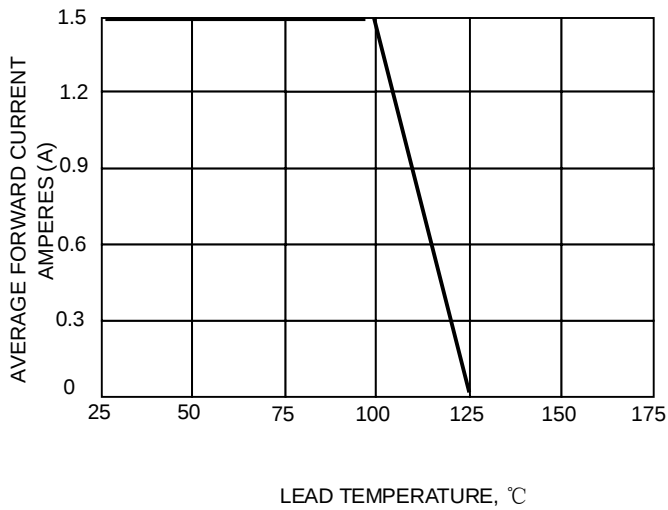


FIG.2-TYPICAL FORWARD CHARACTERISTICS

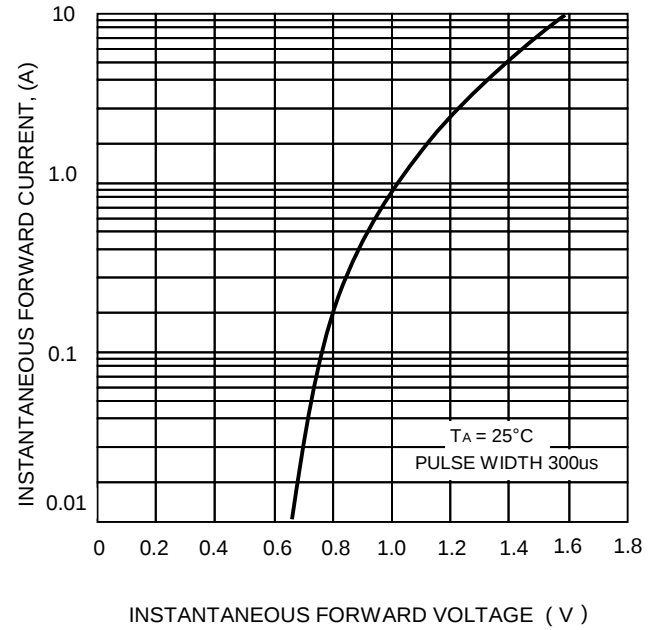


FIG.4 – TYPICAL JUNCTION CAPACITANCE

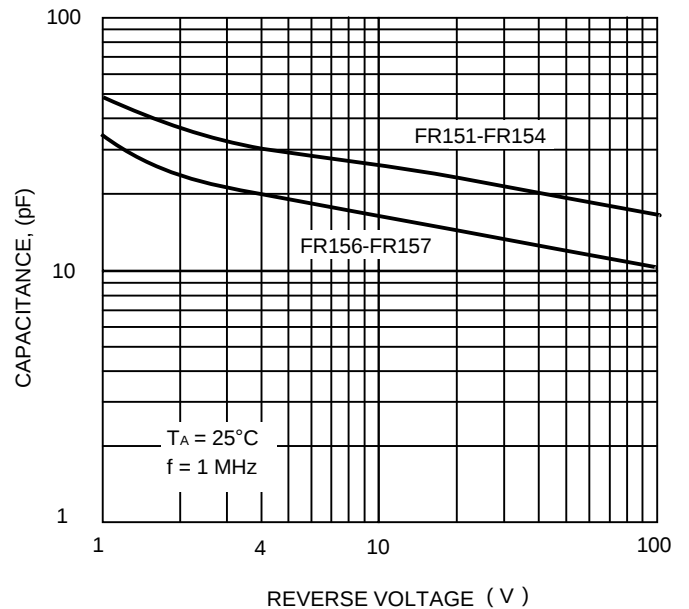
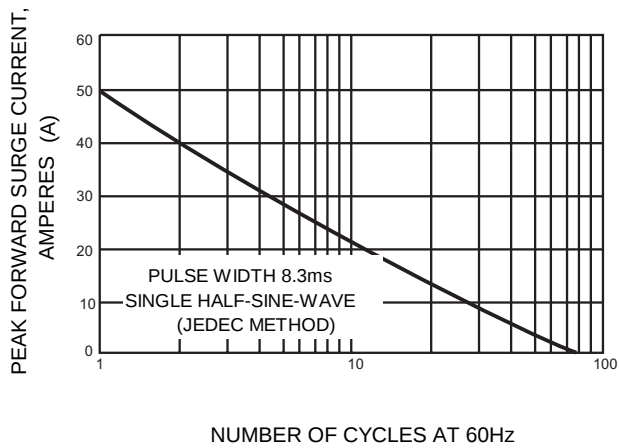


FIG.3- MAXIMUM NON-REPETITIVESURGE CURRENT



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