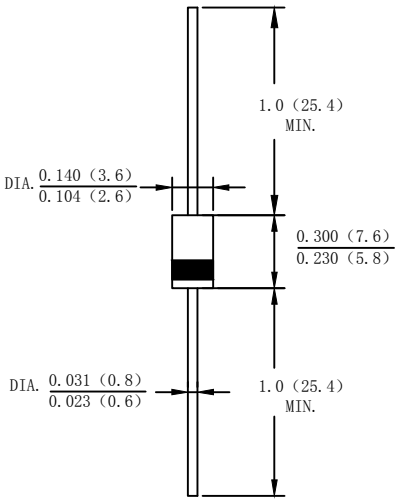
FR151 THRU FR157

1.5 **AMP.Fast Plastic silicon Recovery Rectifiers**

Features

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

DO-15



Dimensions in inches and (millimeters)

Mechanical Data

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

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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℃	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	10.375							A^2s
Forward Voltage @IF=1.5A	V_{FM}	1.3							V
Peak Reverse Current @T_A =25℃	I_R	5.0							uA
At Rated DC Blocking Voltage @T_A =125℃		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	$R_{\theta JA}$	65							℃/W
Operating Temperature Range	T_j	-65 to + 125							℃
Storage Temperature Range	T_{STG}	-65 to + 150							℃

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

2.Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A .

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

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FIG. 1 – FORWARD CURRENT DERATING CURVE

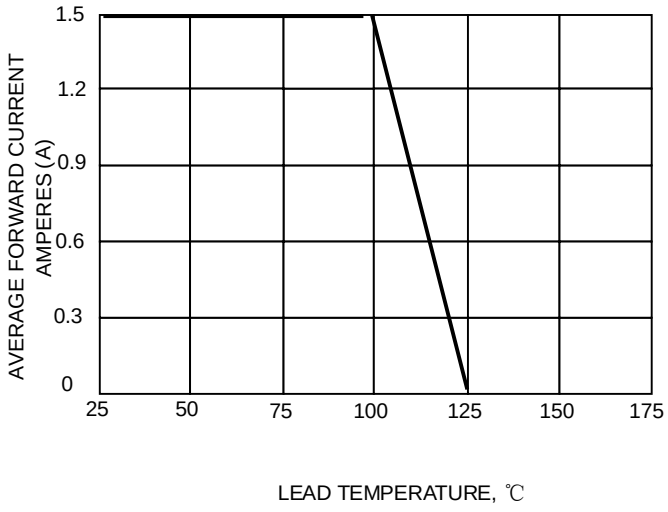


FIG.2-TYPICAL FORWARD CHARACTERISTICS

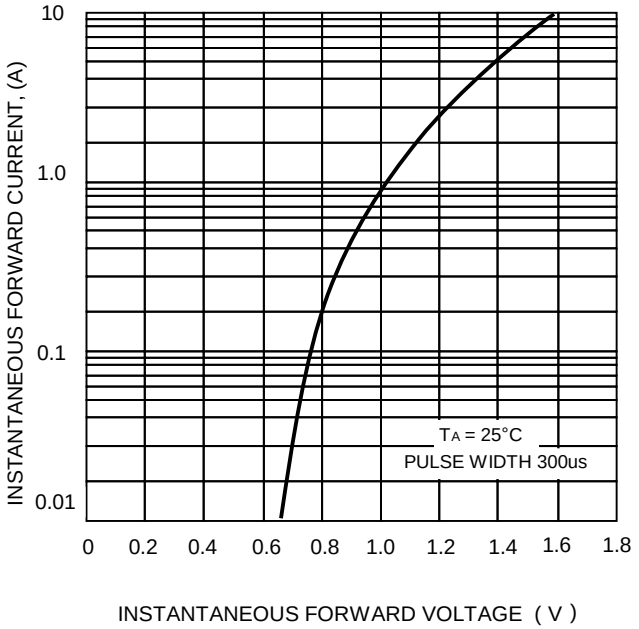


FIG.3- MAXIMUM NON-REPETITIVESURGE CURRENT

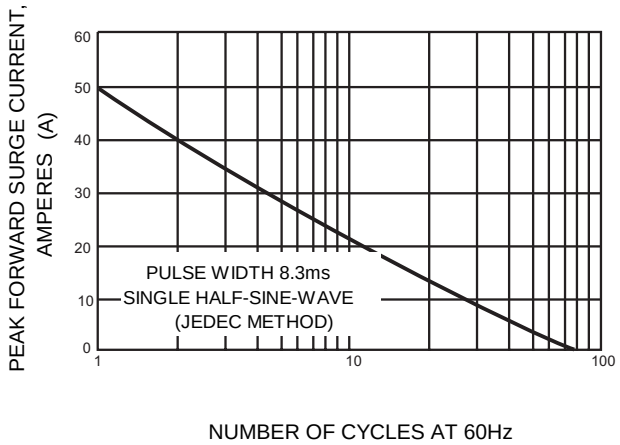
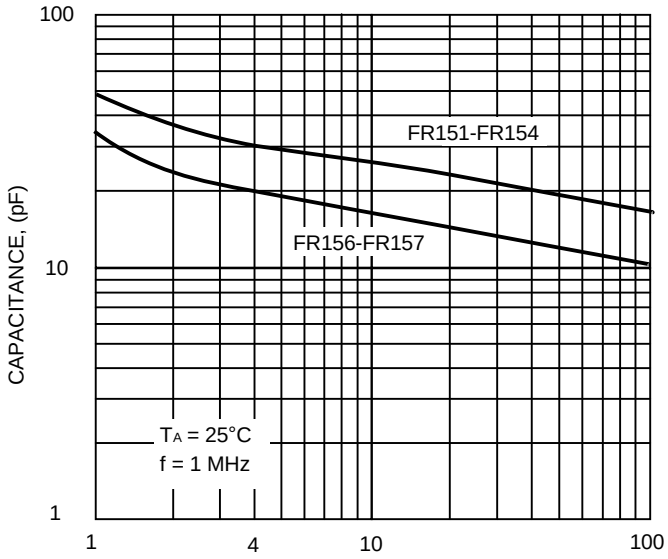


FIG.4 – TYPICAL JUNCTION CAPACITANCE



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