

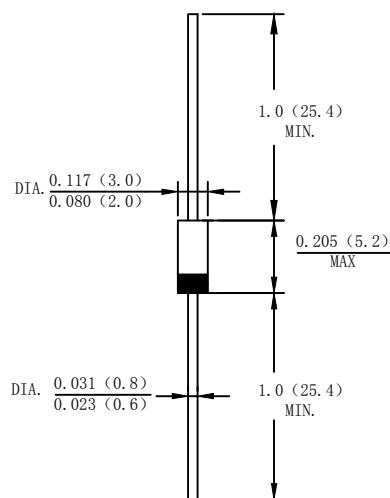
Features

- Low power loss.
- High current capability
- High reliability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: Molded plastic DO-41
- Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

DO-41



Dimensions in inches and (millimeters)

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	FR101	FR102	FR103	FR104	FR105	FR106	FR107	Unit
Maximum Recurrent 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
Average Rectified Output Current (Note 1) @T _L =90°C	I _{F(AV)}	1.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	3.735							A ² s
Forward Voltage @IF=1.0A	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 (Note 2)	T _{RR}	150				250	500		nS
Typical Junction Capacitance (Note 3)	C _J	25				15			pF
Typical Thermal Resistance Junction to Ambient(Note 1)	R _{θJA}	25							°C/W
Operating Temperature Range	T _J	-55 to + 125							°C
Storage Temperature Range	T _{STG}	-55 to + 150							°C

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

2. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1A$, $I_{rr} = 0.25A$.

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

FIG. 1 – FORWARD CURRENT DERATING CURVE

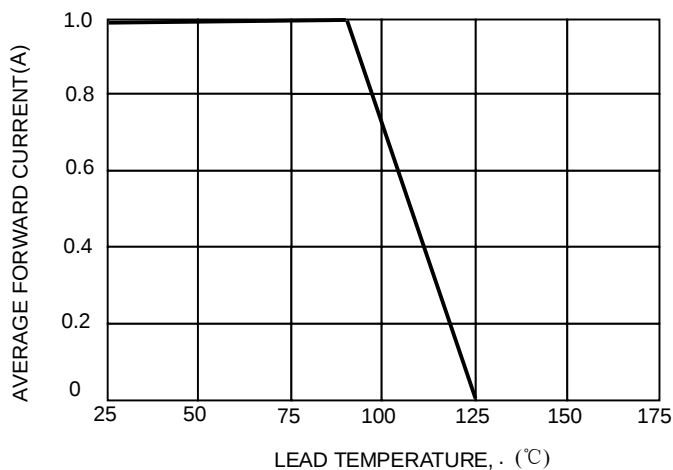


FIG.2-TYPICAL FORWARD CHARACTERISTICS

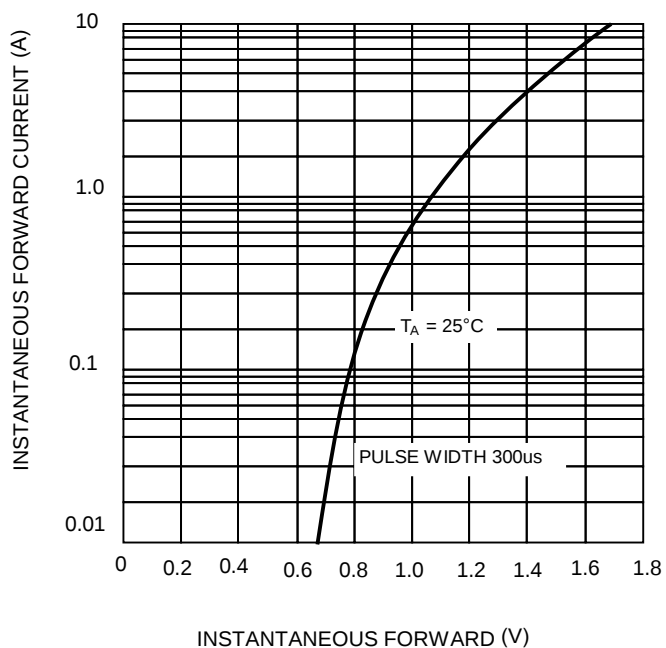


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

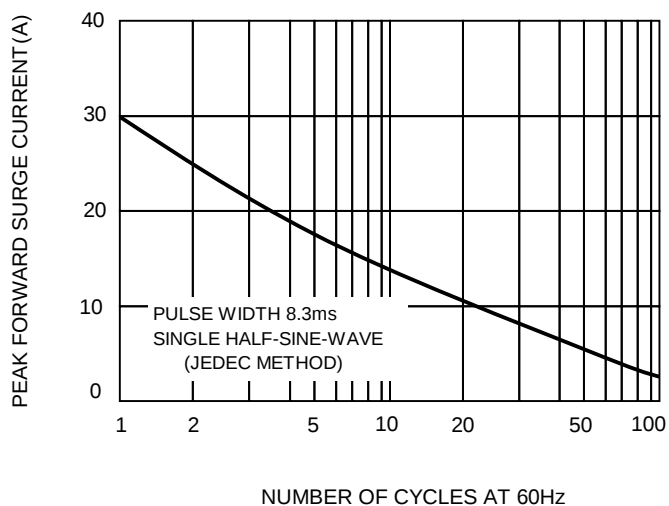
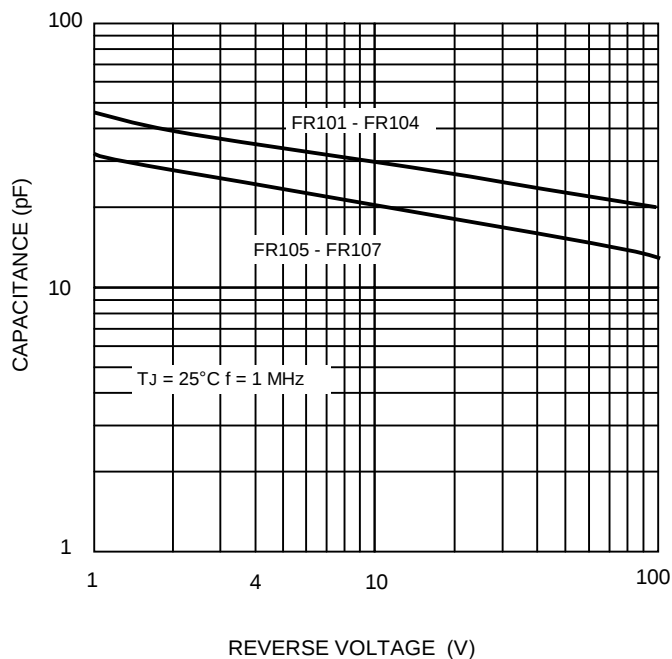


FIG.4 – TYPICAL JUNCTION CAPACITANCE



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