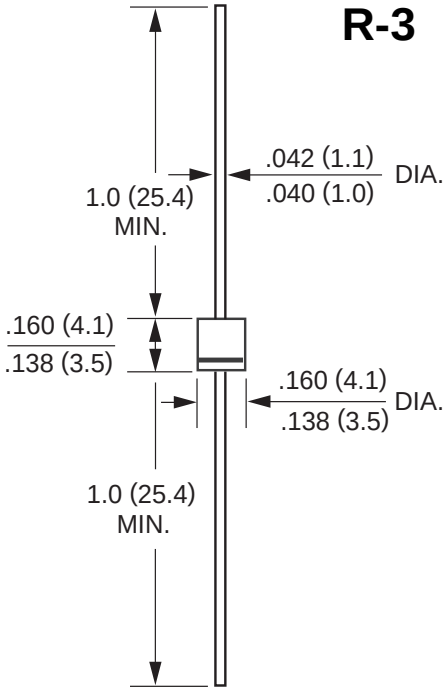
CURRENT 2.5 Ampere
VOLTAGE RANG 50 to 1000 Volts

FR251 THRU FR257

FEATURES

- Low coat construction
- Fast switching for high efficency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  260 /10 secods/.375 (9.5mm)lead length at 5 lbs(2.3kg) tension



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.042ounce, 0.59 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	FR 251	FR 252	FR 253	FR 254	FR 255	FR 256	FR 257	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375 (9.5mm) lead length at T_A= 75	$I_{(AV)}$	2.5							Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	100							Amps
Maximum Instantaneous Forward Voltage @ 2.5A	V_F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 25	I_R	5.0							µA
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 100	I_R	500							µA
Maximum Reverse Recovery Time (Note 3) T_J=25	trr	150				250	500		ns
Typical Junction Capacitance (Note 1)	C_J	60							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	30							/W
Operating Junction Temperature Range	T_J	(-55 to +150)							
Storage Temperature Range	T_{STG}	(-55 to +150)							

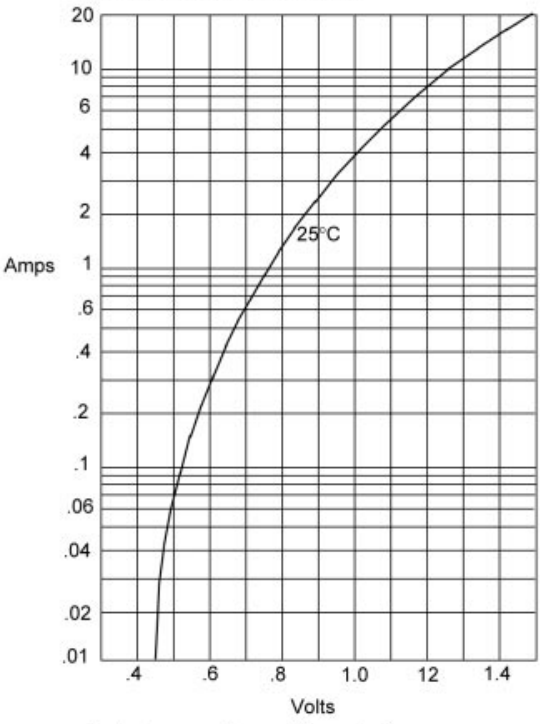
Notes:
1.Measured at 1.0MHz and Applied Reverse Voltage of 4.0Volits.
2 Thermal Resistance from junction to Ambient at .375 (9.5mm)lead length, P.C.board mounted.
3.Reverse Recovery Test Conditions:If=0.5mA,Ir=1.0mA,Irr=0.25A

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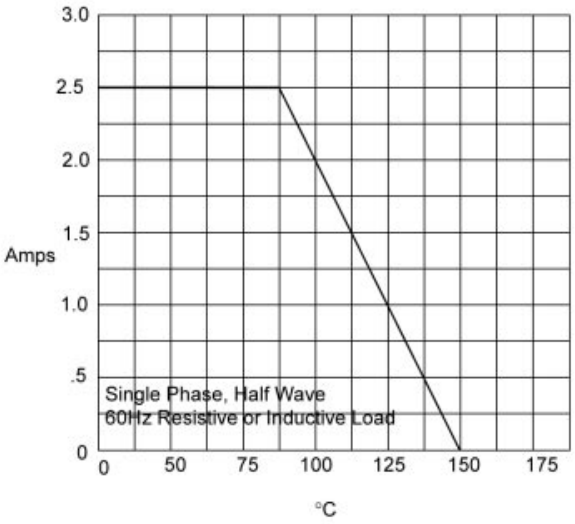
RATING AND CHRACTERISTIC CURVES FR251 Thru FR257

Figure 1
Typical Forward Characteristics



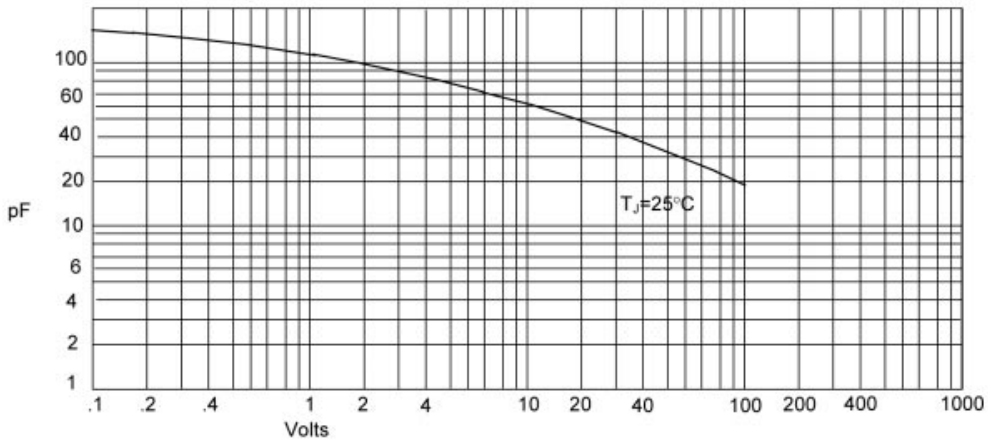
Instantaneous Forward Current - Amperes*versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes*versus*
Ambient Temperature -°C

Figure 3
Junction Capacitance



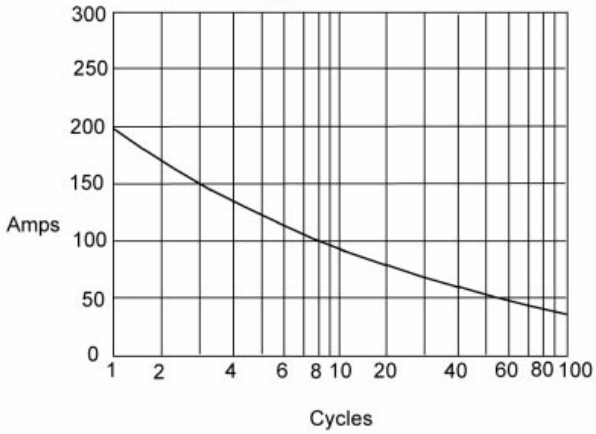
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

CURRENT 2.5 Ampere
VOLTAGE RANG 50 to 1000 Volts

FR251 THRU FR257

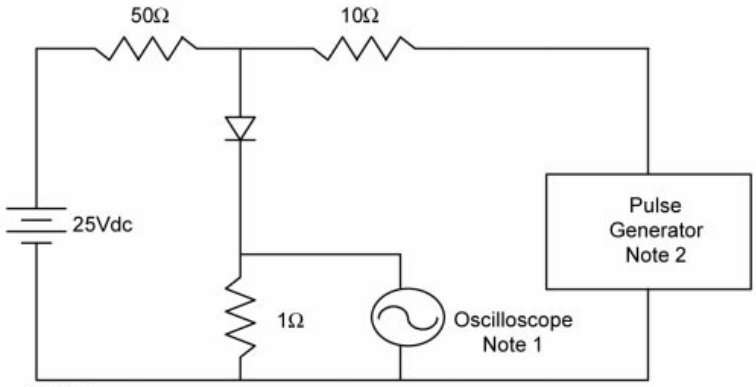
RATING AND CHRACTERISTIC CURVES FR251 Thru FR257

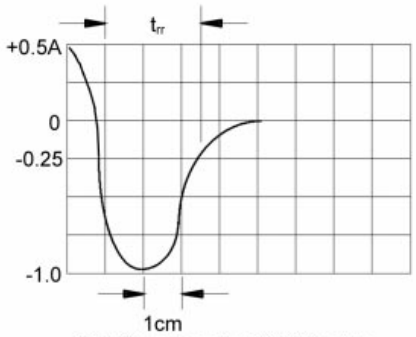
Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperes*versus*
Number Of Cycles At 60Hz - Cycles

Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram





Notes:
1. Rise Time = 7ns max.
Input impedance = 1 megohm, 22pF
2. Rise Time = 10ns max.
Source impedance = 50 ohms
3. Resistors are non-inductive