

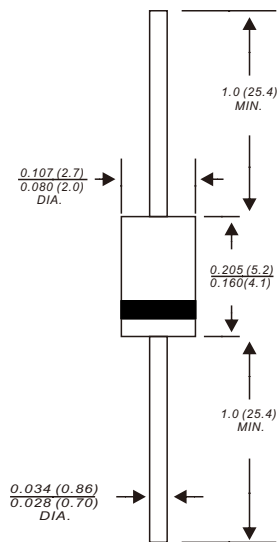


FR 101 THRU FR 107

FAST RECOVERY RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

DO-41



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- High speed switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260 °C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-41 molded plastic body

Terminals: Solder plated , solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 0.33 grams

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 current derate by 20%.

	SYMBOLS	FR 101	FR 102	FR 103	FR 104	FR 105	FR 106	FR 107	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 TA=75 °C	I <sub(av)< sub=""></sub(av)<>	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V _F	1.3							Volts
Maximum DC reverse current TA=25 °C at rated DC blocking voltage TA=100 °C	I _R	5.0 50.0							uA
Maximum reverse recovery time (NOTE 1)	t _{rr}	150			250	500			ns
Typical junction capacitance (NOTE 2)	C _{tot}	15.0							pF
Typical thermal resistance (NOTE 3)	R _{θJA}	50.0							°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-60 to +150							°C

Note: 1. Reverse recovery condition I_F=0.5A, I_R=1.0A, I_{rr}=0.25A

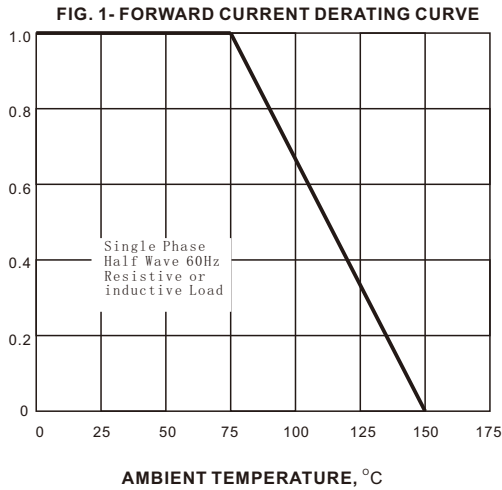
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

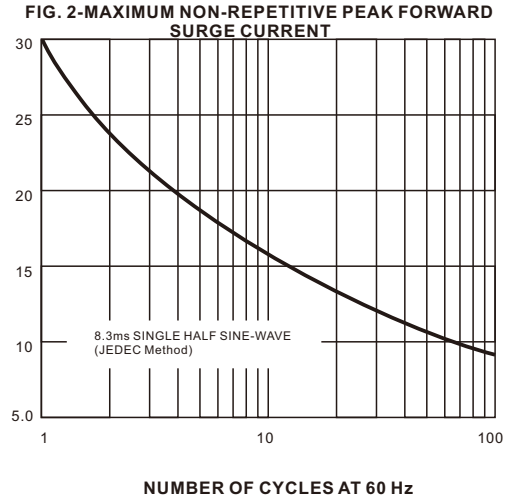


RATINGS AND CHARACTERISTIC CURVES FR101 THRU FR107

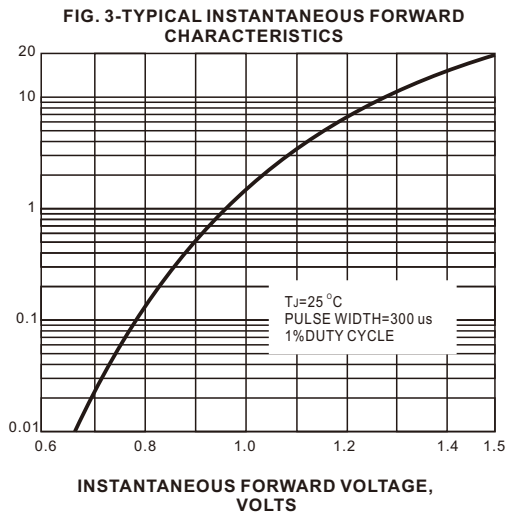
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES



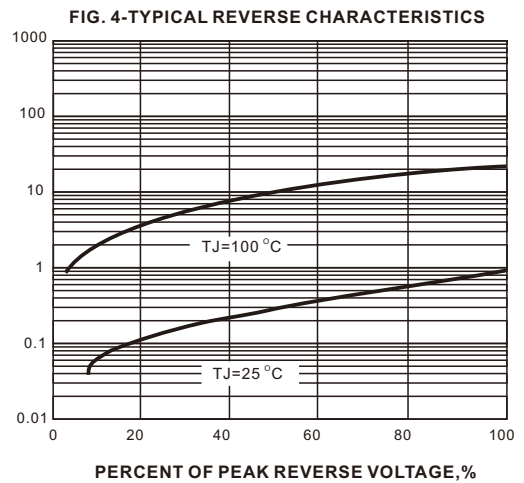
PEAK FORWARD SURGE CURRENT, AMPERES



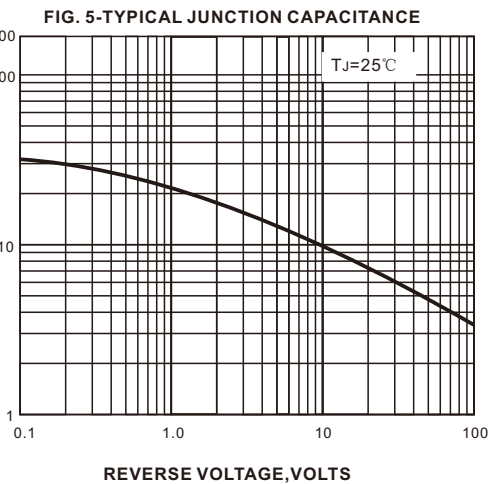
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE, °C/W

