# Kingtronics®

# FR101 THRU FR107

#### FAST RECOVERY RECTIFIERS

**REVERSE VOLTAGE** 50 to 1000 Volts

FORWARD CURRENT 1.0 Ampere

**DO-41** 

#### **FEATURES**

The plastic package carries Underwriters Laboratory

Flammability Classification 94V-0

Fast switching for high efficiency

Low reverse leakage

High forward surge current capability

High temperature soldering guaranteed:

250  $\,^{\circ}$ C/10 seconds,0.375"(9.5mm) lead length,

5 lbs. (2.3kg) tension

#### **MECHANICAL DATA**

Case: JEDEC DO-41 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750,

Method 2026

Polarity: Color band denotes cathode end

Mounting position: Any Weight: 0.27 grams

## 1.0 (25.4) MIN. 0.107(2.7) 0.080(2.0) DIA. 0.205(5.2) 0.166(4.2) 1.0 (25.4) MIN.

#### **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25℃ ambient temperature unless otherwise specified , Dimensions in inches and (millimeters) Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%

PARAMETER	SYMBOL	FR101	FR102	FR103	FR104	FR105	FR106	FR107	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	VOLTS
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current 0.375"(9.5mm) lead length at T <sub>A</sub> =75°C	I <sub>(AV)</sub>	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	İfsm	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.3							VOLTS
Maximum DC Reverse Current $T_A=25^{\circ}$ C at Rated DC blocking voltage $T_A=100^{\circ}$ C	<b>I</b> R	5.0 50.0							uA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	150 250				50	00	ns	
Typical Junction Capacitance (Note 2)	CJ	15.0							pF
Typical Thermal Resistance (Note 3)	RөJA	50.0							°C/W
Operating junction and storage temperature range	T <sub>J</sub> ,Tstg	-65 to +150							$^{\circ}$ C

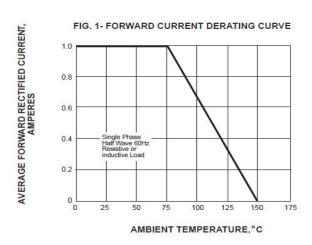
- 1- Reverse recovery condition I<sub>F</sub>=0.5A,I<sub>R</sub>=1.0A,Irr=0.25A
- 2- Measured at 1 MHZ and applied reverse voltage of 4.0V D.C.
- 3-Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted

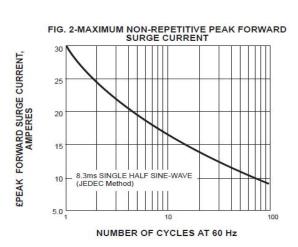
### Kingtronics ® International Company

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### RATINGS AND CHARACTERISTIC CURVES





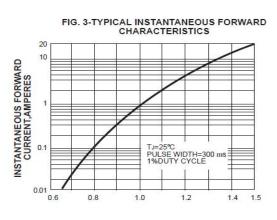
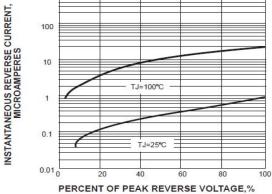
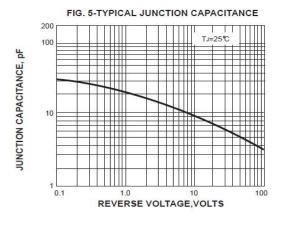


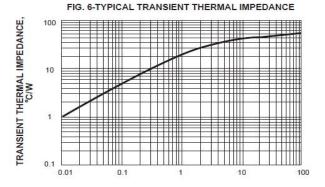


FIG. 4-TYPICAL REVERSE CHARACTERISTICS









t, PULSE DURATION, sec.

Note: Specifications are subject to change without notice.

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