

FR201 THRU FR207

FAST RECOVERY RECTIFIER
 Reverse Voltage: 50 to 1000 Volts
 Forward Current: 2.0 Amperes

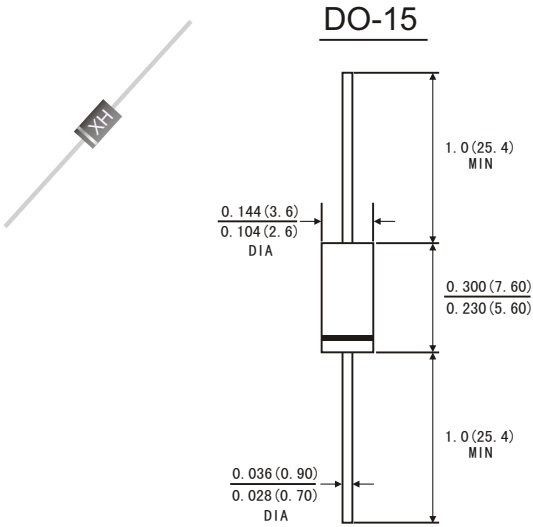


FEATURES

- Low leakage
- Low forward voltage drop
- High current capability
- High current surge
- High reliability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- *Case:* JEDEC DO-15 molded plastic body
- *Terminals:* Plated axial leads, solderable per MIL-STD-750, Method 2026
- *Polarity:* Color band denotes cathode end
- *Mounting Position:* Any
- *Weight:* 0.014ounce, 0.39 gram



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%.)

		Symbols	FR 201	FR 202	FR 203	FR 204	FR 205	FR 206	FR 207	Units
Maximum Recurrent 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=55 °C		I _(AV)	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	60							Amps
Maximum Instantaneous Forward Voltage at 2.0 A		V _F	1.2							Volts
Maximum DC Reverse Current at rated DC blocking voltage	TA=25°C	I _R	5.0							μA
	TA=100°C		100							
Maximum reverse recovery time(Note1)		t _{rr}	150				250	500		ns
Typical junction capacitance(Note2)		C _J	30							pF
Operating junction and storage temperature range		T _J T _{STG}	-65 to +150							°C

Note: 1. Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

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

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

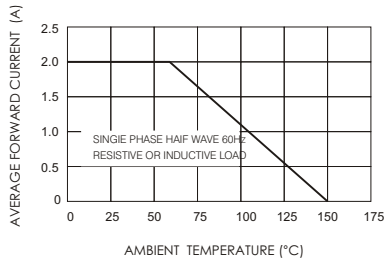


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

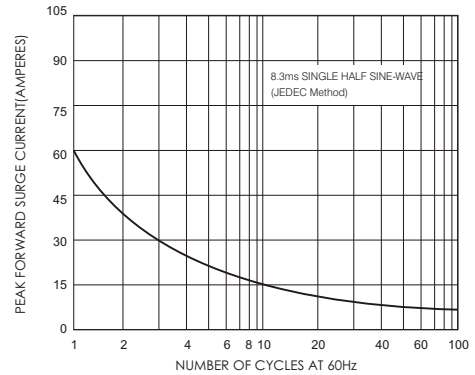


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

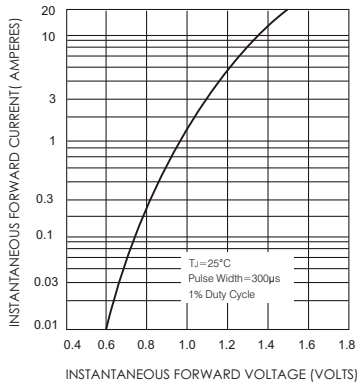


FIG.4-TYPICAL JUNCTION CAPACITANCE

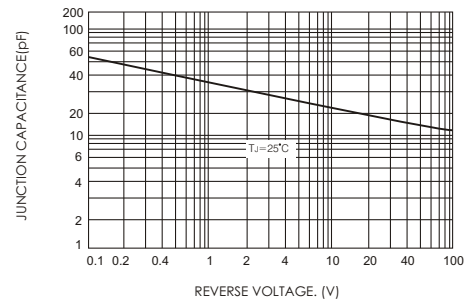
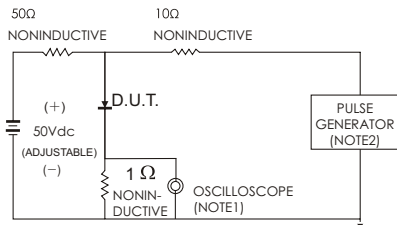
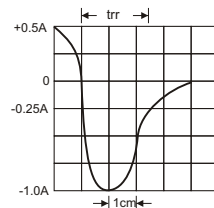


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7ns max. input Impedance = 1 megohm 22pF
2. Rise Time = 10ns max. source Impedance = 50 ohms



SET TIME BASE FOR 50/100 ns/cm