

FAST RECOVERY RECTIFIER

VOLTAGE RANGE 50 to 100 Volts CURRENT 2.5 Amperes

FEATURES

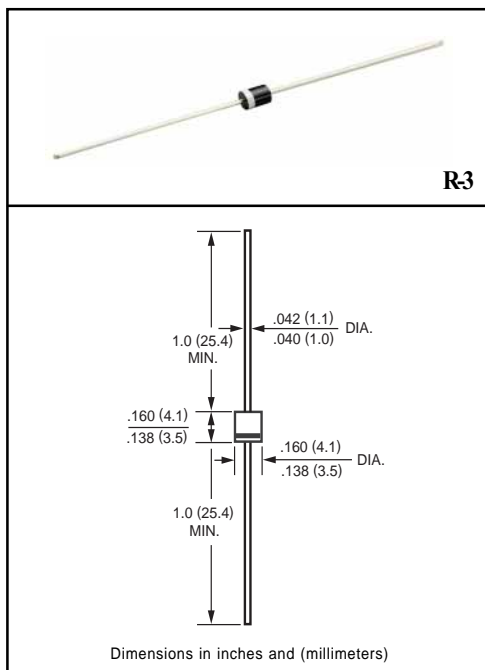
- * Fast switching
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High current surge
- * High reliability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.54 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	FR251	FR252	FR253	FR254	FR255	FR255P	FR256	FR257	FR257P	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	600	800	1000	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	420	560	700	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	600	800	1000	1000	Volts
Maximum Average Forward Rectified Current at TA= 75°C	I _O	2.5									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150									Amps
Typical Junction Capacitance (Note 2)	C _J	60									pF
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150									°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	FR251	FR252	FR253	FR254	FR255	FR255P	FR256	FR257	FR257P	UNITS
Maximum Instantaneous Forward Voltage at 2.5A DC	V _F	1.3									Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I _R	5.0									uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at TL = 55°C		100									uAmps
Maximum Reverse Recovery Time (Note 1)	t _{rr}	150			250	150	500	250			nSec

NOTES : 1. Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (FR251 THRU FR257)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

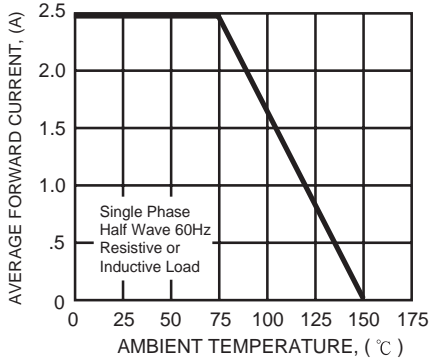


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

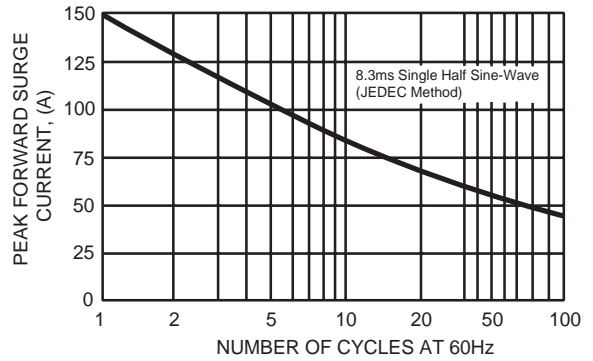


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

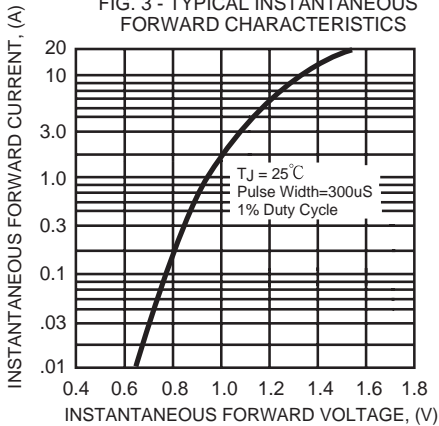


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

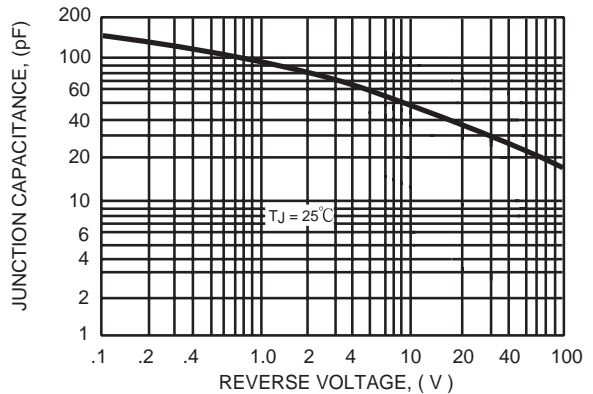
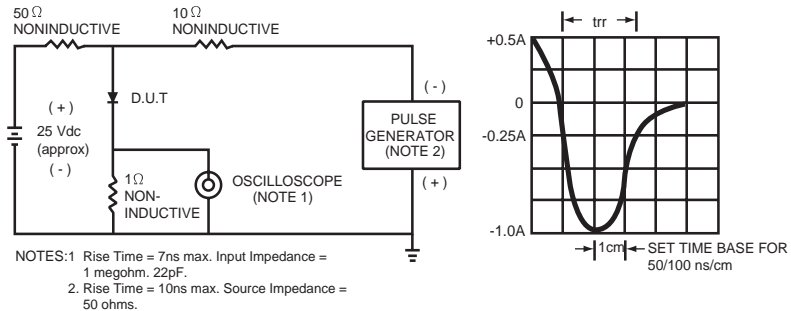


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Rectifiers](#) category:

Click to view products by [Rectron](#) manufacturer:

Other Similar products are found below :

[70HFR40](#) [RL252-TP](#) [150KR30A](#) [1N5397](#) [NTE5841](#) [NTE6038](#) [SCF5000](#) [1N4002G](#) [1N4005-TR](#) [JANS1N6640US](#) [481235F](#)
[RRE02VS6SGTR](#) [067907F](#) [MS306](#) [70HF40](#) [T85HFL60S02](#) [US2JFL-TP](#) [A1N5404G-G](#) [CRS04\(T5L,TEMQ\)](#) [ACGRA4007-HF](#)
[ACGRB207-HF](#) [CLH03\(TE16L,Q\)](#) [ACGRC307-HF](#) [ACEFC304-HF](#) [NTE6356](#) [NTE6359](#) [NTE6002](#) [NTE6023](#) [NTE6039](#) [NTE6077](#)
[85HFR60](#) [40HFR60](#) [70HF120](#) [85HFR80](#) [D126A45C](#) [SCF7500](#) [D251N08B](#) [SCHJ22.5K](#) [SM100](#) [SCPA2](#) [SCH10000](#) [SDHD5K](#) [VS-](#)
[12FL100S10](#) [ACGRA4001-HF](#) [D1821SH45T PR](#) [D1251S45T](#) [NTE5990](#) [NTE6358](#) [NTE6162](#) [NTE5850](#)