



YENYO

HFR30A12

Hyperfast Recovery Rectifier

Features

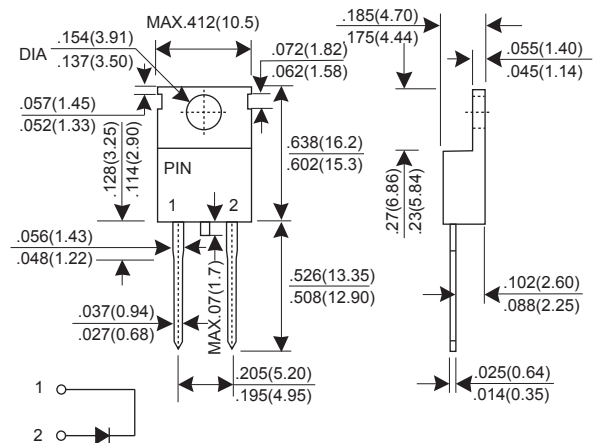
- * Fast switching for high efficiency
- * Low noise
- * Low reverse leakage current
- * High voltage super FRD
- * PFC application

Mechanical Data

- * Case: Molded plastic TO-220AC
- * Epoxy: UL 94V-0 rate flame retardant ,
- * Terminals: Solderable per MIL-STD-202 method 208
- * Mounting position: Any
- * Weight: 2.07 grams

**Voltage Range 1200 V
Current 30.0 Ampere**

TO-220AC



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%.

CHARACTERISTIC	SYMBOL	HFR30A12			UNIT
		Min.	Typ.	Max.	
Recurrent Peak Reverse Voltage	VRRM	-	-	1200	V
RMS Voltage	VRMS	-	-	840	V
DC Blocking Voltage	V DC	-	-	1200	V
Average Forward Rectified Current Tc= 80 °C	IF(AV)	-	-	30.0	A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	-	-	250	A
Instantaneous Forward Voltage @30A(25°C) @30A(150°C)	VF	-	-	3.2 2.8	V
DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=150°C	IR	-	-	250 1000	uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	-	-	55	nS
Maximum Reverse Recovery Time (Note 2)	Trr	-	-	85	nS
Typical junction Capacitance (Note 3)	CJ	-	60	-	pF
Typical Thermal Resistance (Note 4)	R θJC	-	-	1.2	°CW
Operating Junction and Storage Temperature Range	TJ, TSTG	-65	-	175	°C

NOTES : (1) Reverse recovery test conditions IF = 0.5A ,IR = 1A , Irr = 0.25A

(2) Reverse recovery test conditions IF = 15A, dIF/dt = 100A/us.

(3) Junction Capacitance test conditions : VR = 10V,IF = 0A.

(4) Thermal Resistance junction to case.

RATINGS AND CHARACTERISTIC CURVES HFR30A12

FIG.1 - FORWARD CURRENT DERATING CURVE

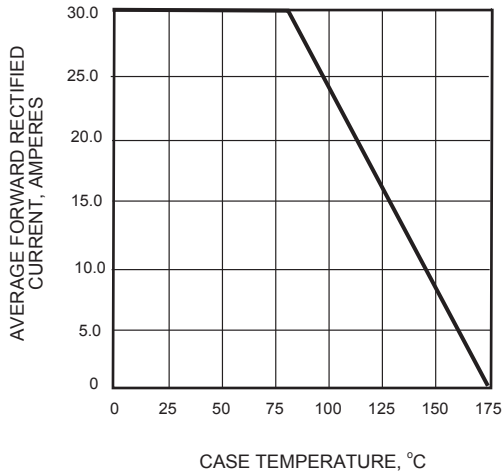


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

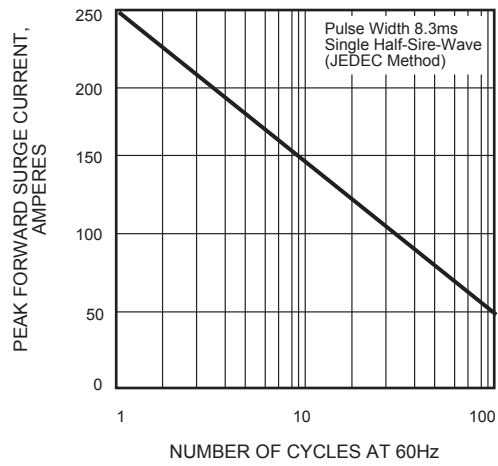


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

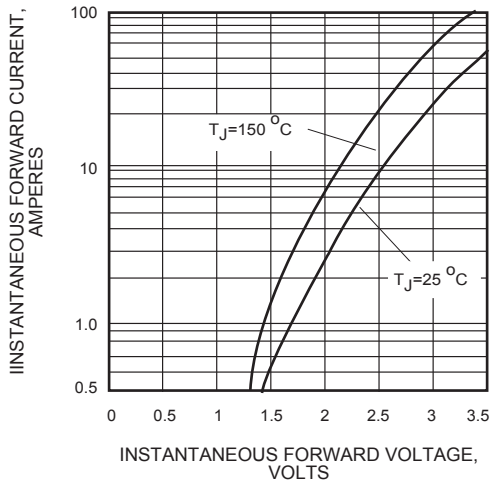


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

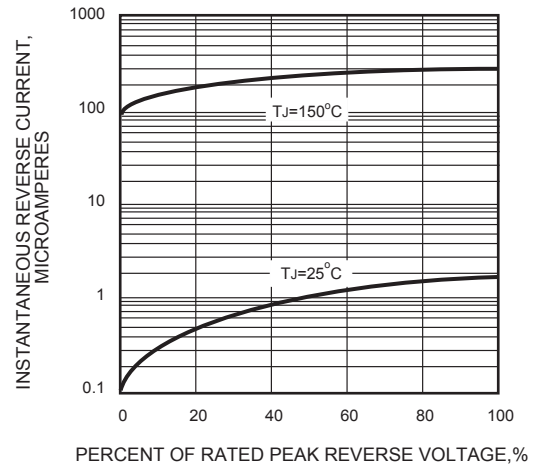


FIG.5 - T_{rr} , t_a AND t_b CURVES vs FORWARD CURRENT

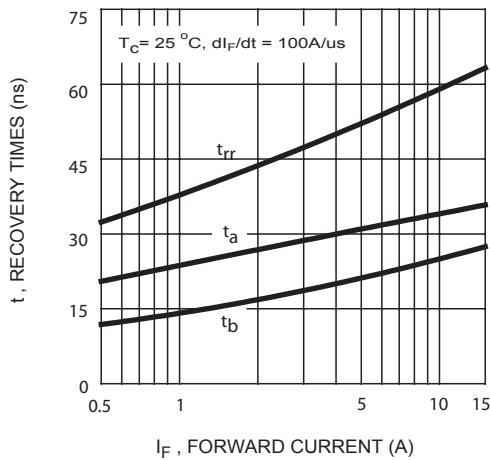


FIG.6 - TYPICAL JUNCTION CAPACITANCE

