



Dual Fast Recovery Power Rectifier

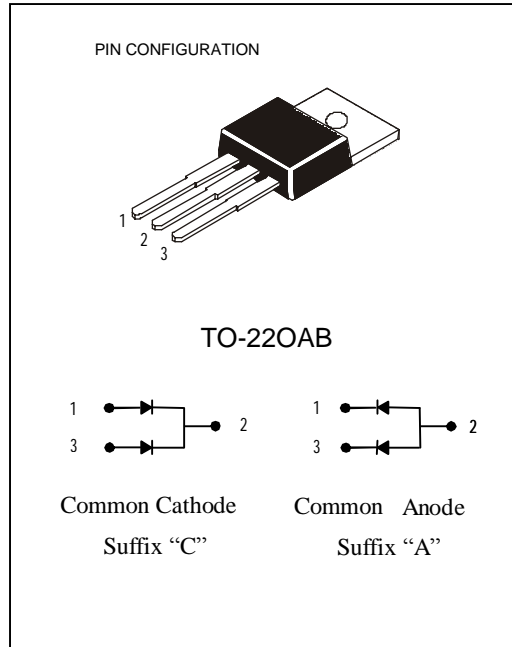
Designer for used the switching power supply. Inverter, free wheeling, and polarity protection application.

Features

- *Glass passivation chip junction.
- *Fast switching for high efficiency
- *High reliability
- *Low forward voltage ,high current capacity

Mechanical Data

- *Case:TO-220AB molded plastic
- *Epoxy: UL 94V-0 rate flame retardant
- *Terminals: Pure tin plate, lead free, solderable per MIL-STD-202, method 208 guaranteed
- *Polarity: as marked



Maximum Ratings and Electrical Characteristics

Characteristics	Symbol	Typical data	Final Spec	Unit
Peak Repetitive Reverse Voltage	V _{rrm}			
Working Peak Reverse Voltage	V _{rwm}	250-350	230	V
DC Blocking Voltage	V _r			
RMS reverse Voltage	V _{r(rms)}		150	V
Average Rectifier Forward Current Per Leg T _c =125C	I _{F(AV)}		6	A
Total Device			12	
Peak Repetitivity Forward Current (Rate V _r , Square Wave,20kHz)	I _{FM}		12	A
Non-Repetitivity Peak Surge Current Maximum Instantaneous Forward	I _{FSM}		100	A
Forward Voltage @6A	V _F	0.95-1.05	1.1	V
Maximum Instanteous Reverse Current (Rated DC Voltage ,T _c =25C)	I _R	<1	5	uA
(Rated DC Voltage,T _c =125c)			100	
Reverse Recovery Time (I _f =0.5A,I _r =1.0, I _{rr} =0.25A)	T _{rr}	60-80	100	ns
Typical Juntion Capacitance (Reverse Voltage of 4 volts &f=1MHz)	C _p		55	pF
Operation and Storage Temp Range	T _j ; T _{stg}		-65to150	°C

FIG-1 TYPICAL FORWARD CHARACTERISTICS

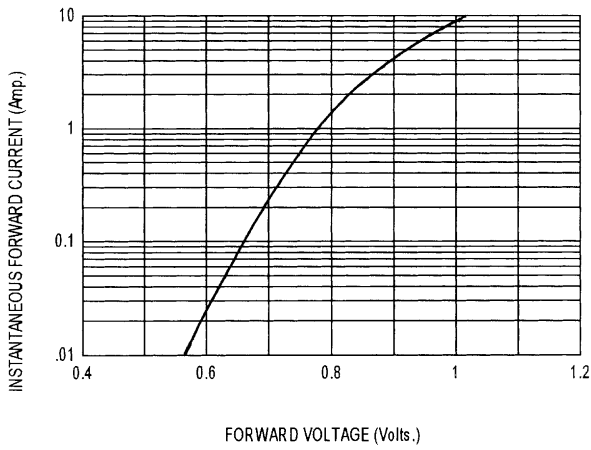


FIG-2 TYPICAL REVERSE CHARACTERISTICS

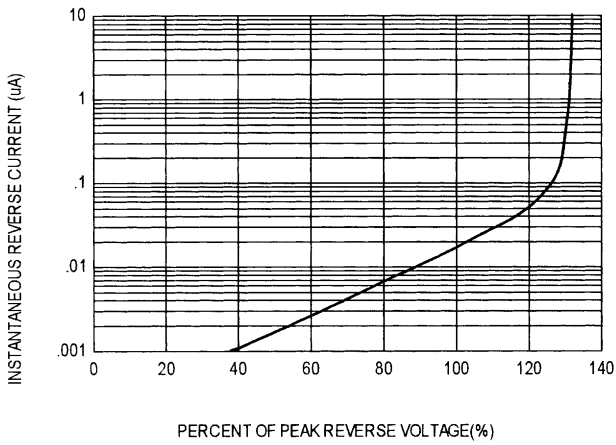


FIG-3 FORWARD CURRENT DERATING CURVE

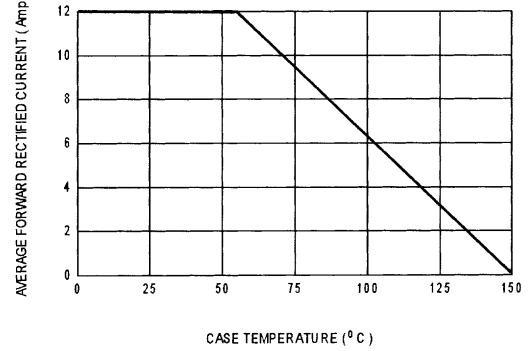


FIG-4 TYPICAL JUNCTION CAPACITANCE

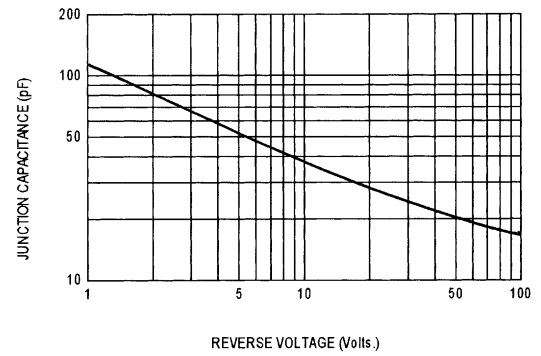
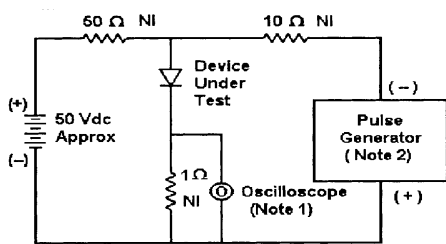
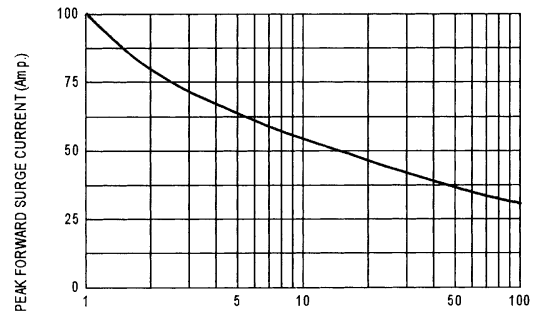
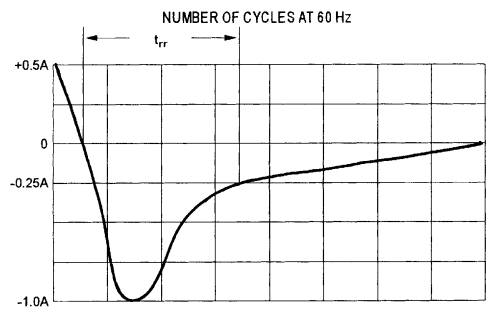


FIG-5 PEAK FORWARD SURGE CURRENT



- Notes:
 1. Rise Time = 7 ns max. Input Impedance = 1 M Ω, 22 pF
 2. Rise Time = 10 ns max. Input Impedance = 50 Ω



Set time base for 50 ns/div

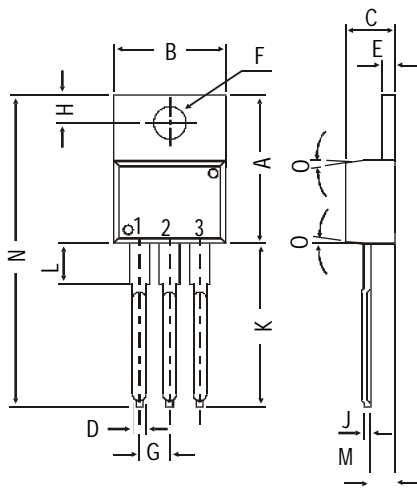
Fig-6 Reverse Recovery Time Characteristic and Test Circuit Diagram

F12C20

28 series

PACKAGE MECHANICAL DATA

TO-220AB (Plastic)



All dimensions in mm.

DIM	MIN.	MAX.
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
DO		.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
JO		.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N		31.24
OD	EG	

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OTHER INFORMATION

Part Number	Marking	Weight	Base quantity	Packing mode
F12C20C	F12C20C	2.3 g	50	Tube
F12C20A	F12C20A	2.3 g	50	Tube