

## **Switchmode Dual Fast Recovery Power Rectifiers**

... Designed for use in switching power supplies. inverters and as free wheeling diodes. These state-of-the-art devices have the following features:

- \* Glass Passivated chip junctions
- \* Low Reverse Leakage Current
- \* Fast Switching for High Efficiency
- \* 150 °C Operating Junction Temperature
- \* Low Forward Voltage , High Current Capability
  \* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

## **MAXIMUM RATINGS**

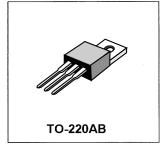
Characteristic	Symbol	F12C				Unit
		05	10	15	20	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	150	200	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	105	140	V
Average Rectifier Forward Current Per Leg T <sub>c</sub> =125°C Per Total Device	I <sub>F(AV)</sub>	6.0 12			А	
Peak Repetitive Forward Current (Rate V <sub>R</sub> , Square Wave, 20kHz, T <sub>C</sub> =125°C)	l <sub>FM</sub>	12			А	
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware,single phase,60Hz)	  FSM	100			А	
Operating and Storage Junction Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	- 65 to + 150			°C	

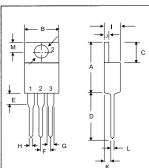
## **ELECTRICAL CHARACTERISTICS**

Characteristic	Symbol	F12C		F12C				Unit
		05	10	15	20			
Maximum Instantaneous Forward Voltage $(I_F=6.0 \text{ Amp}, T_C=25 ^{\circ}\text{C})$	V <sub>F</sub>	1.30			V			
Maximum Instantaneous Reverse Current (Rated DC Voltage, T <sub>c</sub> = 25 °C) (Rated DC Voltage, T <sub>c</sub> = 125 °C)	I <sub>R</sub>	5.0 100			uA			
Reverse Recovery Time (I <sub>F</sub> = 0.5 A, I <sub>R</sub> =1.0 , I <sub>rr</sub> =0.25 A)	T <sub>rr</sub>	150		ns				
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C <sub>P</sub>	55		pF				

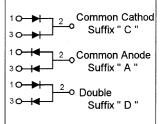
## **FAST RECOVERY RECTIFIERS**

12 AMPERES 50 -- 200 VOLTS





	MILLMETERS			
DIM	MIN	MAX		
Α	14.68	15.32		
В	9.78	10.42		
С	6.01	6.52		
D	13.06	14.62		
Ε	3.57	4.07		
F	2.42	2.66		
G	1.12	1.36		
Н	0.72	0.96		
1	4.22	4.98		
J	1.14	1.36		
K	2.20	2.97		
L	0.33	0.55		
М	2.48	2.98		
0	3.70	3.90		



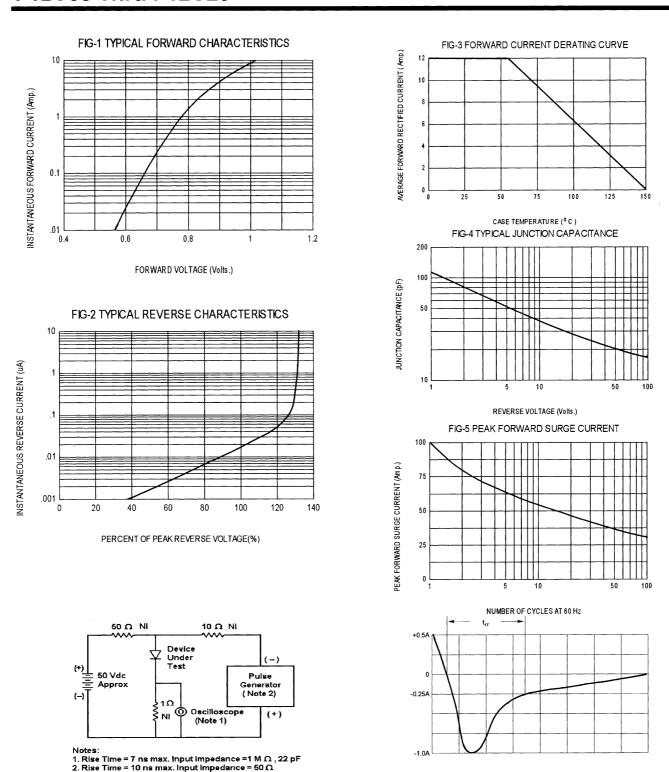


Fig-6 Reverse Recovery Time Characteristic and Test Circuit Diagram

Set time base for 50 ns/div