

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 Stored Charge Majority Carrier Conduction
- *Low Forward Voltage, High Current Capability
- * Plastic Material used Carries Underwriters Laboratory
- * Flammability Classification 94V-O
- *Pb Free
- * In compliance with EU RoHs 2002/95/EC directives



MAXIMUM RATINGS

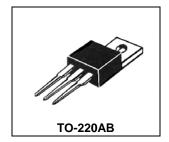
Characteristic	Symbol	F16C				l lmi4
Characteristic		05	10	15	20	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	V
Average Rectifier Forward Current (per diode) Total Device (Rated V _R), T _C =125°C	I _{F(AV)}	8.0 16			Α	
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I _{FSM}	125			А	
Operating and Storage Junction Temperature Range	T_J , T_stg	-65 to +150			$^{\circ}\!\mathbb{C}$	

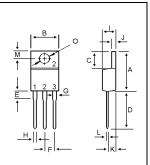
ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	F16C				Unit
	Symbol	05	10	15	20	Ollic
Maximum Instantaneous Forward Voltage ($I_F = 8 \text{ Amp } T_C = 25^{\circ}C$)	V _F	1.30			V	
Maximum Instantaneous Reverse Current (Rated DC Voltage, T _C = 25°C) (Rated DC Voltage, T _C = 125°C)	I _R	10 500			uA	
Reverse Recovery Time (I _F = 0.5 A, I _R =1.0 , I _{rr} =0.25 A)	T _{rr}	150		ns		
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	СР	55		₽F		

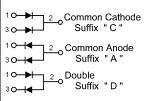
FAST RECOVERY RECTIFIERS

16 AMPERES 50-200 VOLTS



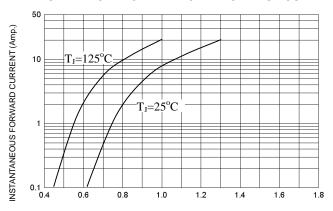


DIM	MILLIMETERS		
DIIVI	MIN	MAX	
Α	14.68	16.00	
В	9.78	10.42	
С	5.02	6.60	
D	13.00	14.62	
Е	3.10	4.19	
F	2.41	2.67	
G	1.10	1.67	
Н	0.69	1.01	
1	3.21	4.98	
J	1.14	1.40	
K	2.20	3.30	
L	0.28	0.61	
M	2.48	3.00	
0	3.50	4.00	



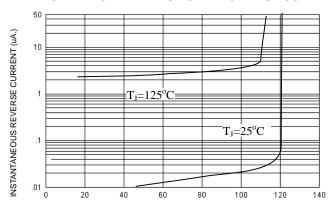
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FIG-1 TYPICAL FORWARD CHARACTERISTICS



FORWARD VOLTAGE (Volts)

FIG-2 TYPICAL REVERSE CHARACTERISTICS



PERCENT OF PEAK REVERSE VOLTAGE (%)

50 Ω NI 10 Ω NI Under Test 50 Vdc Pulse Approx (Note 2) Oscilloscope NI (Note 1)

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

FIG-3 FORWARD CURRENT DERATING CURVE

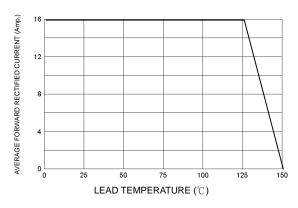


FIG-4TYPICAL JUNCTION CAPACITANCE

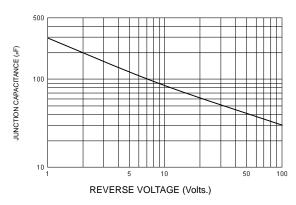
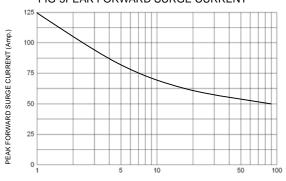
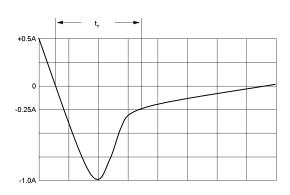


FIG-5PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60 Hz



Set time base for 20/50 ns/cm

FIG-6 Reverse Recovery Time Characteristic and Test Circuit Diagram



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