

ETF10005 THRU ETF1010

10 Amperes High Power Super Fast Rectifiers
VOLTAGE : 50 TO 1000Volts

Features	Outline
<ul style="list-style-type: none"> • Low power loss, high efficiency. • High surge current capability. • Super fast recovery time for switching mode application. • Low power loss. • Glass passivated chip junctions. • Suffix "G" indicates Halogen-free part, ex.ETF10005G. • Lead-free parts meet environmental standards of MIL-STD-19500 /228 	<p>ITO-220AC</p> <p>Dimensions in inches and (millimeters)</p>
Mechanical data	
<ul style="list-style-type: none"> • Epoxy : UL94-V0 rated flame retardant. • Case : JEDEC ITO-220AC molded plastic body over passivated chip. • Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed. • Polarity: Color band denotes cathode end. • Mounting Position : Any. • Weight : Approximated 2.24 gram. 	

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%.

Parameter	Symbol	ETF10005	ETF1001	ETF1002	ETF1004	ETF1006	ETF1008	ETF1010	UNIT
Making code		ETF10005	ETF1001	ETF1002	ETF1004	ETF1006	ETF1008	ETF1010	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	
Maximum Forward Voltage@10A, $T_A = 25^\circ C$	V_F	0.95			1.30	1.70			V
Maximum reverse recovery time(1) @ $T_J = 25^\circ C$	T_{rr}	35			50				ns
Operating Temperature	T_J	-50 ~ +150							°C

Note : 1. $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current		I_o			10	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			150	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^\circ C$	I_R			1.0	uA
	$V_R = V_{RRM}$ $T_A = 125^\circ C$				300	
Typical junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		62		pF

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Rating and characteristic curves

Fig.1 - Forward Current Derating Curve

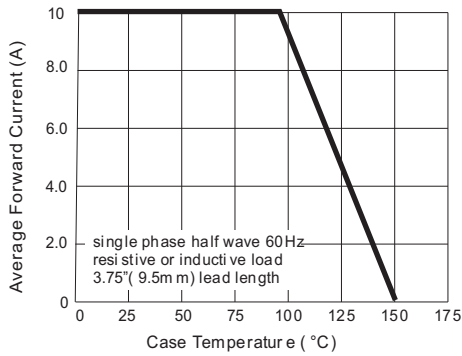


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

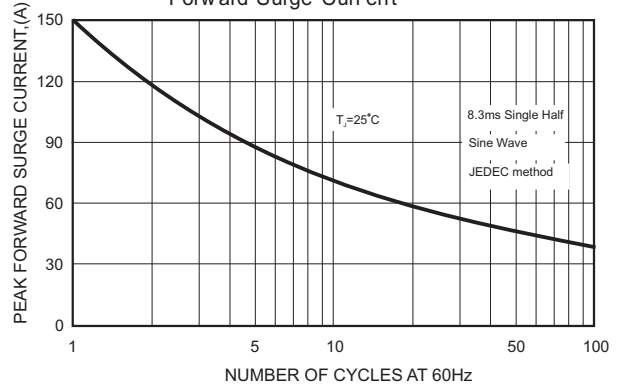


Fig. 3 - Typical Instantaneous Forward Characteristics

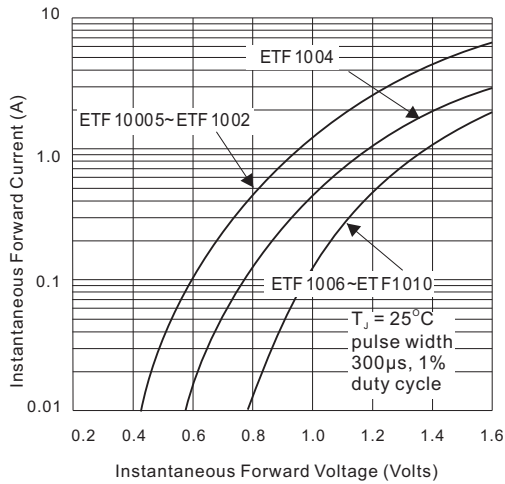


Fig. 4 - Typical Reverse Characteristics

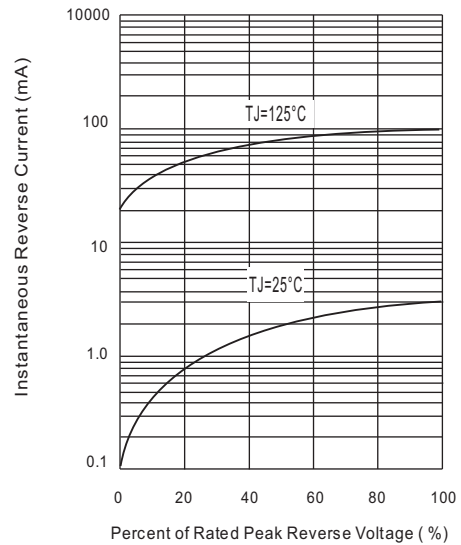


Fig. 5 - Typical Junction Capacitance

