

ETF2005CT THRU ETF2010CT

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

Features	Outline
<ul style="list-style-type: none"> Dual rectifier construction, positive centetap, offer 10.0A half wave and 20.0A full wave rectification. Low power loss, high efficiency. High surge current capability. Super fast recovery time for switching mode application. Low power loss. Glass passivated chip junctions. Lead-free parts meet environmental standards of MIL-STD-19500 /228 	<p>ITO-220AB</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-220AB 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 2.25 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	ETF2005CT	ETF2001CT	ETF2002CT	ETF2004CT	ETF2006CT	ETF2008CT	ETF2010CT	UNIT
Making code		ETF2005CT	ETF2001CT	ETF2002CT	ETF2004CT	ETF2006CT	ETF2008CT	ETF2010CT	
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, $T_A = 25^\circ\text{C}$	V_F	0.95			1.30	1.70			V
Maximum reverse recovery time(1) @ $T_J = 25^\circ\text{C}$	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			20	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			150	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$	I_R			1.0	uA
	$V_R = V_{RRM}$ $T_A = 125^\circ\text{C}$				300	
Typical junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		85		pF

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Rating and characteristic curves

Fig.1 - Forward Current Derating Curve

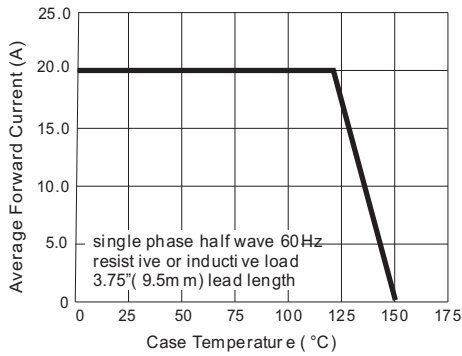


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

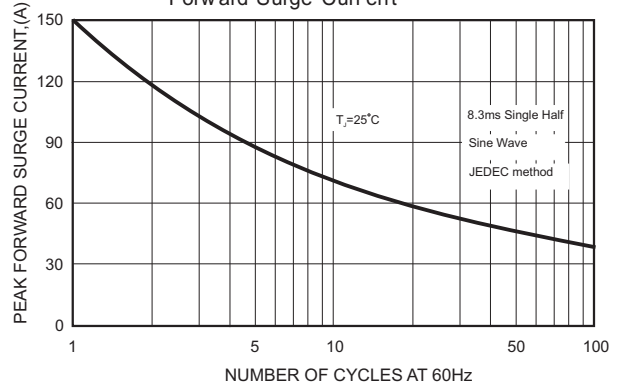


Fig. 3 - Typical Instantaneous Forward Characteristics

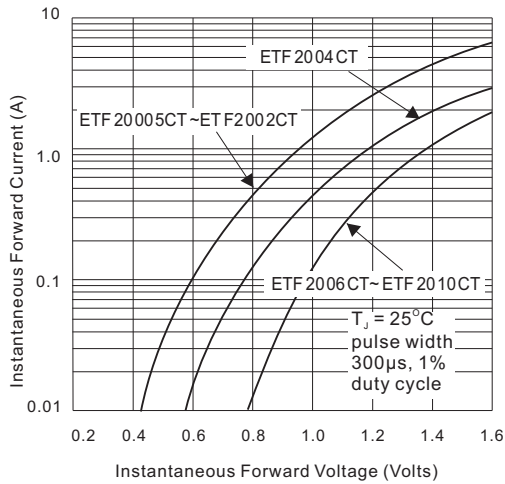


Fig. 4 - Typical Reverse Characteristics

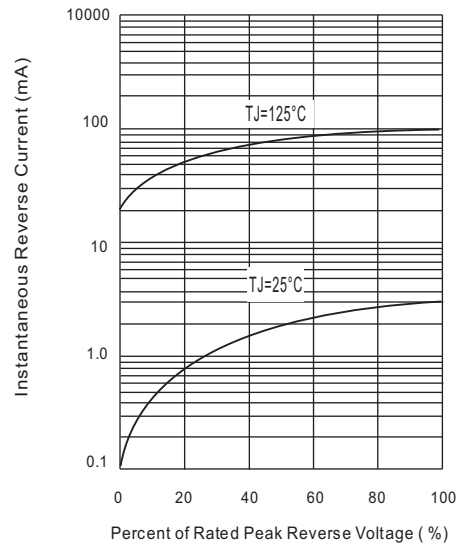


Fig. 5 - Typical Junction Capacitance

