ET20005CT THRU ET2010CT

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

Features

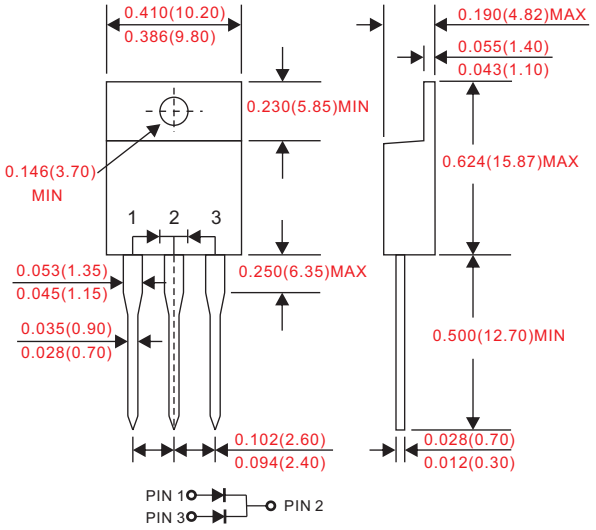
- Dual rectifier construction, positive centetap, offer 10.0A half wave and 20.0A full wave rectification.
- Low power loss, high efficiency.
- High surge current capability.
- Super fast recovery time for switching mode application.
- Low power loss.
- Glass passivated chip junctions.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC TO-220AB molded plastic body over passivated chip.
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guranteed.
- Polarity: Color band denotes cathode end.
- Mounting Position : Any.
- Weight : Approximated 2.25 gram.

Outline

TO-220AB



Dimensions in inches and (millimeters)

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	ET20005CT	ET2001CT	ET2002CT	ET2004CT	ET2006CT	ET2008CT	ET2010CT	UNIT
Making code		ET20005CT	ET2001CT	ET2002CT	ET2004CT	ET2006CT	ET2008CT	ET2010CT	
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	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Forward Voltage@10A, T_A = 25°C	V_F	0.95			1.30	1.70			V
Maximum reverse recovery time(1) @ T_J = 25°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°C	I_R			1.0	uA
	V_R = V_{RRM} T_A = 125°C				300	
Typical junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		85		pF

http://www.citcorp.com.tw/
TEL:886-3-6565228
FAX:886-3-6565091

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Rating and characteristic curves

Fig.1 - Forward Current Derating Curve

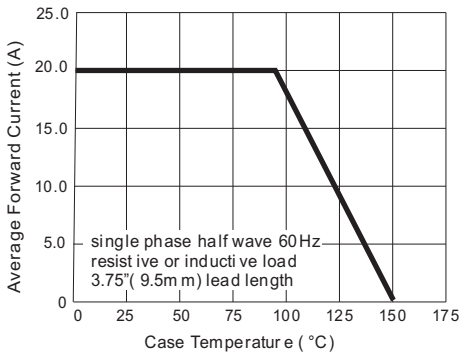

Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

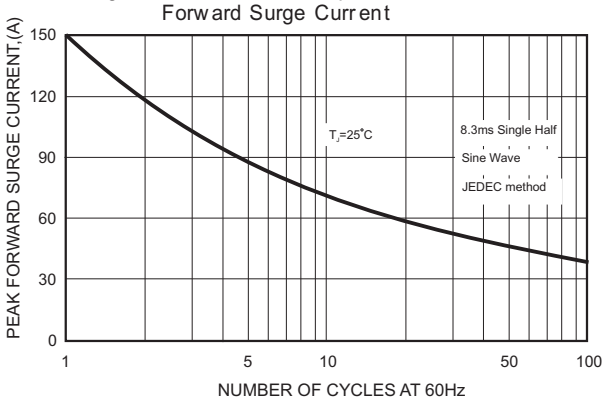

Fig. 3 - Typical Instantaneous Forward Characteristics

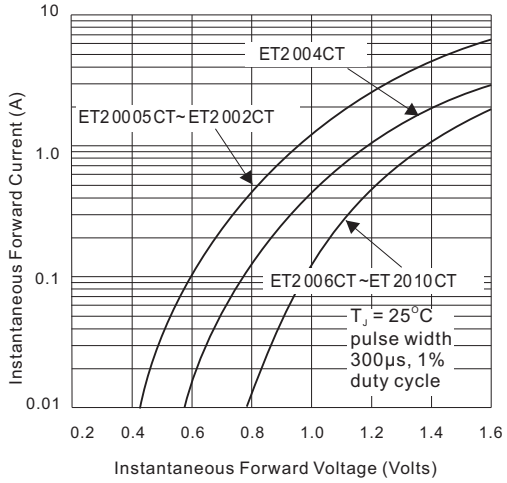

Fig. 4 - Typical Reverse Characteristics

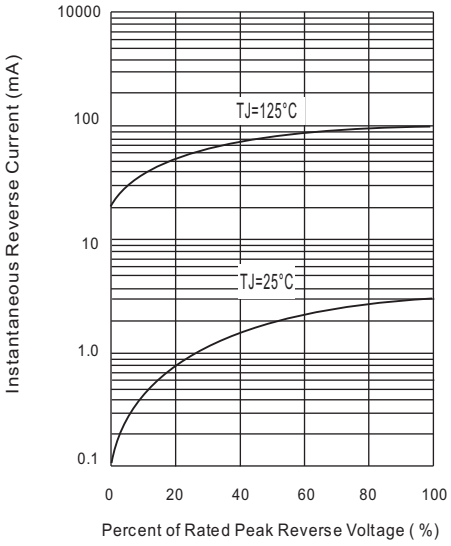

Fig. 5 - Typical Junction Capacitance