

# ET10005CT THRU ET1010CT

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

Features	Outline
<ul style="list-style-type: none"> <li>• Dual rectifier construction, positive centetap, offer 5.0A half wave and 10.0A full wave rectification.</li> <li>• Low power loss, high efficiency.</li> <li>• High surge current capability.</li> <li>• Super fast recovery time for switching mode application.</li> <li>• Low power loss.</li> <li>• Glass passivated chip junctions.</li> <li>• Suffix "G" indicates Halogen-free part, ex.ET10005CTG.</li> <li>• Lead-free parts meet environmental standards of MIL-STD-19500 /228</li> </ul>	<p>TO-220AB</p> <p>Dimensions in inches and (millimeters)</p>
Mechanical data	
<ul style="list-style-type: none"> <li>• Epoxy : UL94-V0 rated flame retardant.</li> <li>• Case : JEDEC TO-220AB molded plastic body over passivated chip.</li> <li>• Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed.</li> <li>• Polarity: Color band denotes cathode end.</li> <li>• Mounting Position : Any.</li> <li>• Weight : Approximated 2.25 gram.</li> </ul>	

## 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	ET10005CT	ET1001CT	ET1002CT	ET1004CT	ET1006CT	ET1008CT	ET1010CT	UNIT
Making code		ET10005CT	ET1001CT	ET1002CT	ET1004CT	ET1006CT	ET1008CT	ET1010CT	
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@5.0A, $T_A = 25^\circ\text{C}$	$V_F$	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		$I_o$			10	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$			150	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$	$I_R$			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	$C_J$		62		pF

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## Rating and characteristic curves

Fig.1 - Forward Current Derating Curve

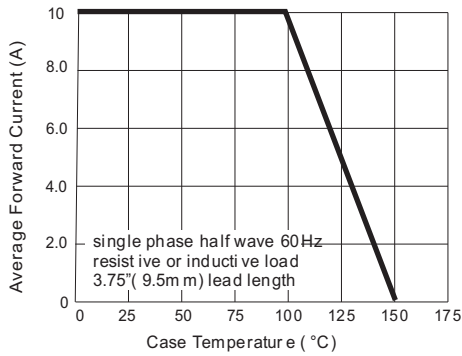


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

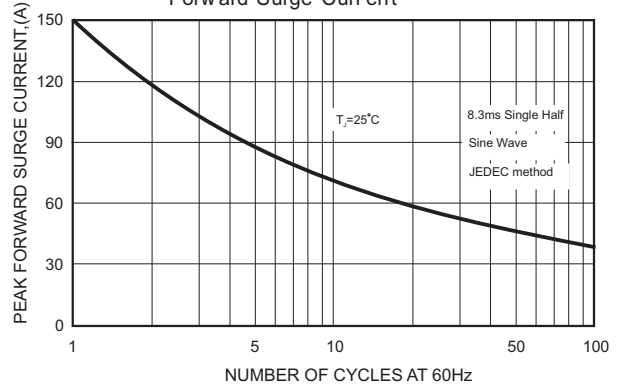


Fig. 3 - Typical Instantaneous Forward Characteristics

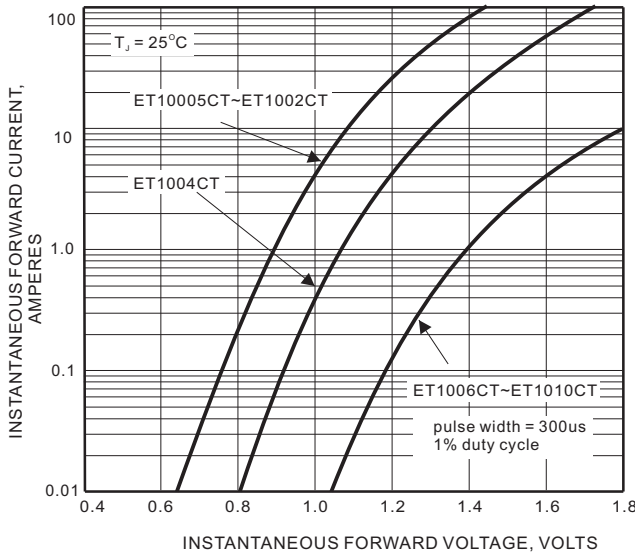


Fig. 4 - Typical Reverse Characteristics

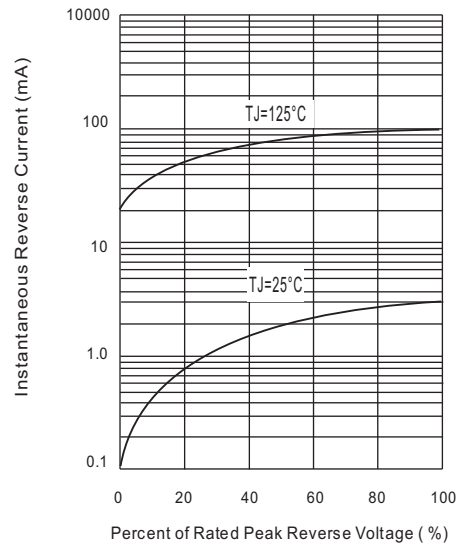


Fig. 5 - Typical Junction Capacitance

