

■ Features

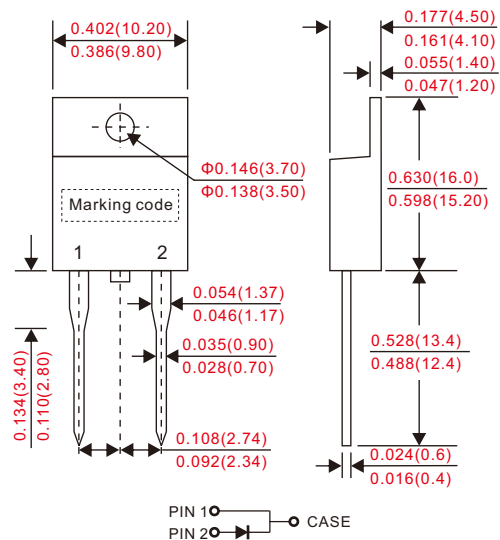
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Low reverse current.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC TO-220AC molded plastic body.
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: As marked.
- Mounting Position : Any.
- Weight : Approximated 2.24 gram.

■ Outline

TO-220AC



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	Conditions	Symbol	2CR106A8C	UNIT
Marking code			2CR106A8C	
Peak repetitive reverse voltage		V_{RRM}		
Working peak reverse voltage		V_{RWM}	600	V
DC blocking voltage		V_{RM}		
RMS reverse voltage		$V_{R(RMS)}$	420	V
Forward rectified current		I_O	10	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	150	A
Thermal resistance	Junction to case	$R_{\theta JC}$	3	°C/W
Operating and Storage temperature		T_J, T_{STG}	-55 ~ +150	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Single Pulse Avalanche Energy	L = 40mH	E_{AVL}	20			mJ
Forward voltage drop	$I_F = 10A, T_J = 25^\circ C$	V_F			1.6	V
	$I_F = 10A, T_J = 125^\circ C$				1.45	
Reverse current	$V_R = V_{RRM}, T_J = 25^\circ C$	I_R			10	uA
	$V_R = V_{RRM}, T_J = 125^\circ C$				150	
Reverse recovery time	$I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	t_{rr}			50	ns

Rating and characteristic curves

Fig. 1 - Maximum Non-repetitive Forward Surge Current

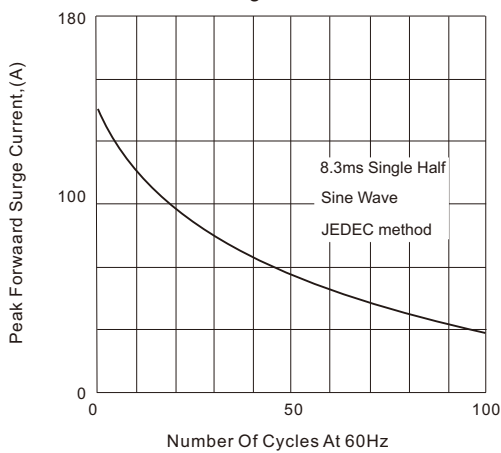


Fig. 2 - Instantaneous Forward Characteristics

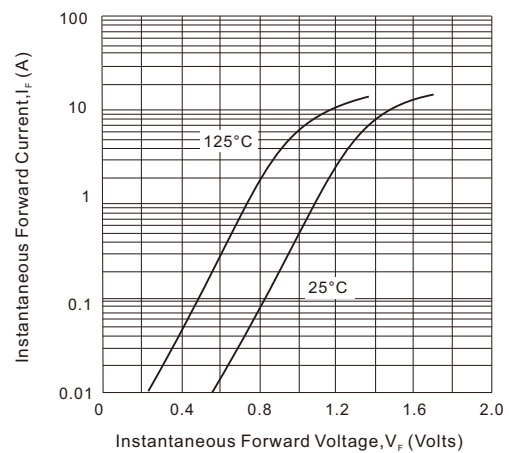


Fig. 3 - Reverse Characteristics

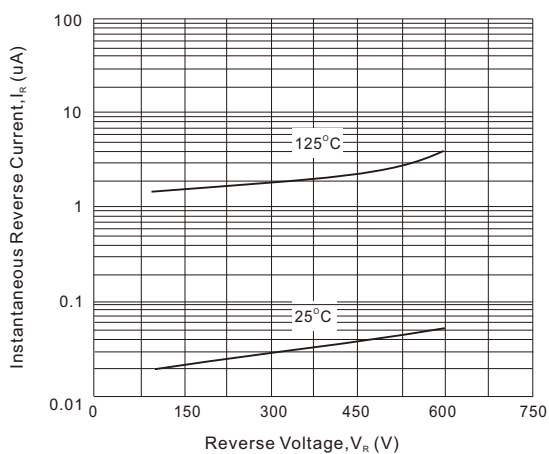
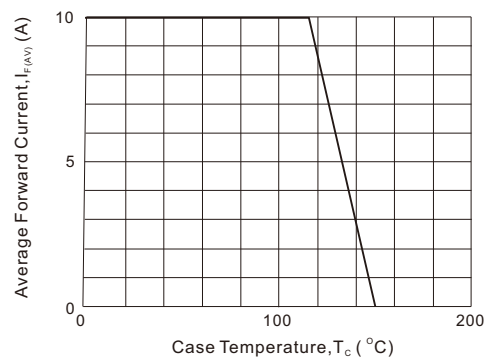


Fig.4 - Forward Current Derating Curve



- CITC reserves the right to make changes to this document and its products and specifications at any time without notice.
- Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
- CITC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does CITC assume any liability for application assistance or customer product design.
- CITC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.
- No license is granted by implication or otherwise under any intellectual property rights of CITC.
- CITC products are not authorized for use as critical components in life support devices or systems without express written approval of CITC.