

### ■ Features

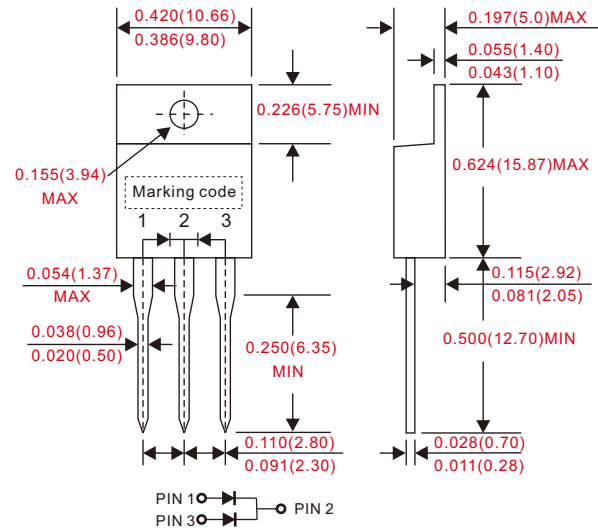
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CS20L200CTG-A.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC TO-220AB molded plastic body.
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: As marked.
- 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	Conditions	Symbol	CS20L200CT-A			UNIT
Marking code			CS20L200CT			
Peak repetitive reverse voltage		$V_{RRM}$	200			V
Working peak reverse voltage		$V_{RWM}$				
DC blocking voltage		$V_{RM}$				
Forward rectified current (total device)		$I_O$	20			A
Forward surge current (per diode)	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	180			A
Peak repetitive reverse surge current (per diode)	2us - 1kHz	$I_{RRM}$	3			A
Thermal resistance(1) (per diode)	Junction to case	$R_{BJC}$	2			°C/W
Operating and Storage temperature		$T_J, T_{STG}$	-65 ~ +175			°C
Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage drop (per diode)	$I_F = 10A, T_J = 25^\circ C$	$V_F$			860	mV
	$I_F = 10A, T_J = 125^\circ C$			660	720	
	$I_F = 20A, T_J = 25^\circ C$				960	
Reverse current (per diode)	$V_R = V_{RRM}, T_J = 25^\circ C$	$I_R$			0.1	mA
	$V_R = V_{RRM}, T_J = 125^\circ C$				10	
Reverse recovery time (per diode)	$I_F = 0.5A, I_R = 1A, I_{RR} = 0.25A$	$t_{rr}$		24	30	ns
	$I_F = 1A, V_R = 30V, di/dt = 100A/us, T_J = 25^\circ C$			20	25	

Note : 1. Thermal resistance from junction to case per leg, with heatsink size(1.35" x 0.95" x 0.18") Al-plate.

■ Rating and characteristic curves

Fig. 1 - Forward Power Dissipation (per diode)

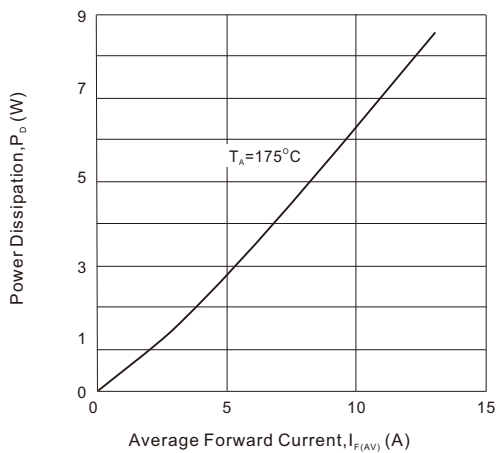


Fig. 2 - Instantaneous Forward Characteristics (per diode)

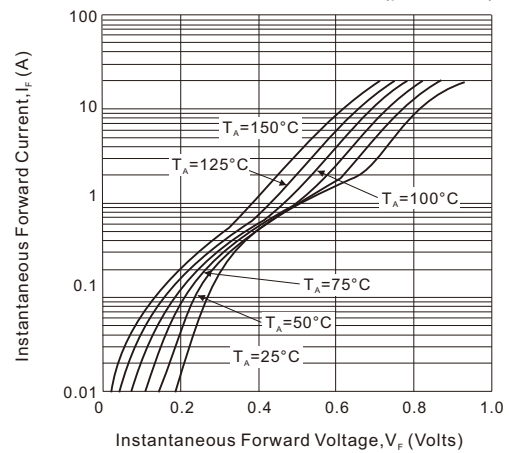


Fig. 3 - Reverse Characteristics (per diode)

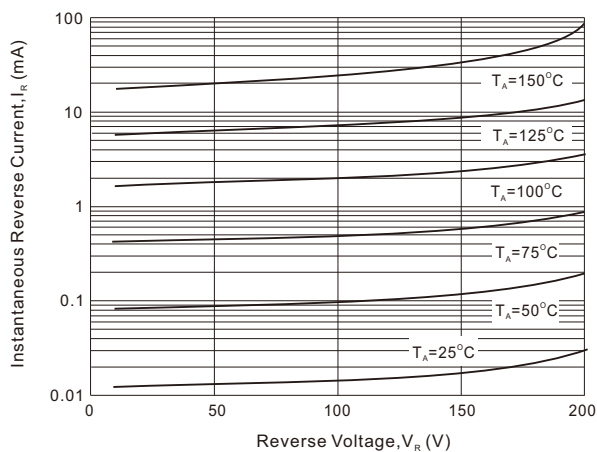
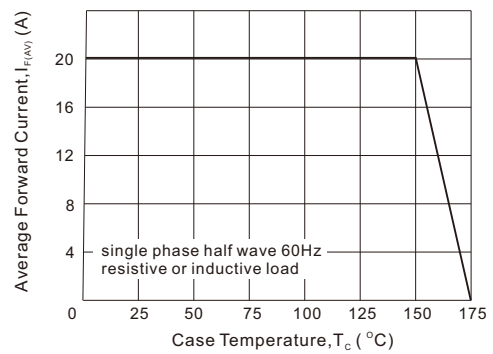


Fig. 4 - Forward Current Derating Curve (total device)



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