

### ■ Features

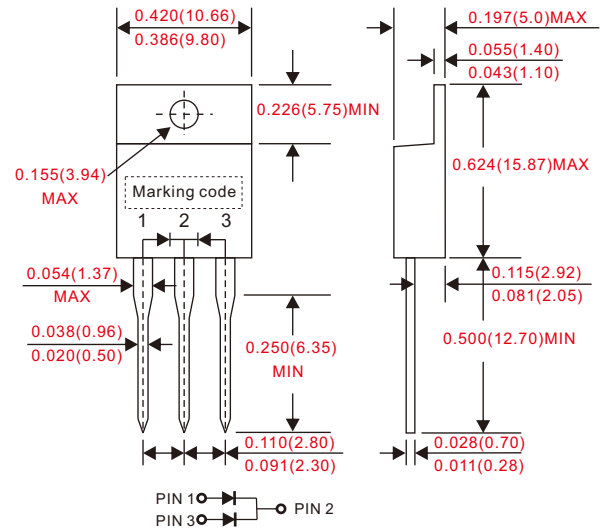
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CS20L60CTG-A.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ 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	CS20L60CT-A			UNIT
Marking code			CS20L60CT			
Peak repetitive reverse voltage		$V_{RRM}$	60			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)	$I_{FSM}$	250			A
Peak repetitive reverse surge current (per diode)	2us - 1kHz	$I_{RRM}$	3			A
Repetitive peak avalanche energy (per diode)	1us, 25°C	$P_{ARM}$	7000			W
Thermal resistance(1) (per diode)	Junction to case	$R_{\theta JC}$	2			°C/W
Operating and Storage temperature		$T_J, T_{STG}$	-65 ~ +150			°C
Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage drop (per diode)	$I_F = 10A, T_J = 25^\circ C$	$V_F$			650	mV
	$I_F = 10A, T_J = 125^\circ C$				560	
	$I_F = 20A, T_J = 25^\circ C$				790	
Reverse current (per diode)	$V_R = V_{RRM}, T_J = 25^\circ C$	$I_R$			0.5	mA
	$V_R = V_{RRM}, T_J = 125^\circ C$				100	

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 - Instantaneous Forward Characteristics (per diode)

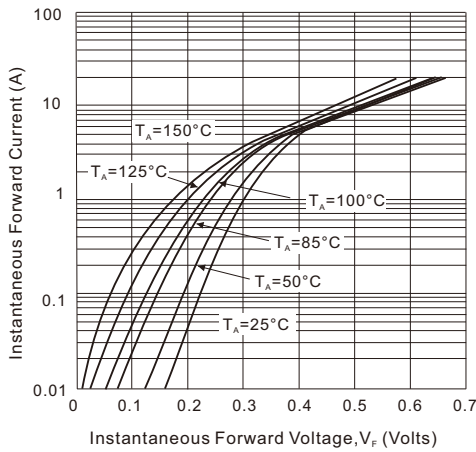


Fig.2 - Forward Current Derating Curve

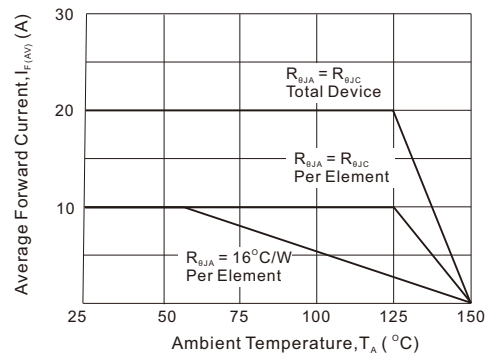


Fig. 3 - Reverse Characteristics (per diode)

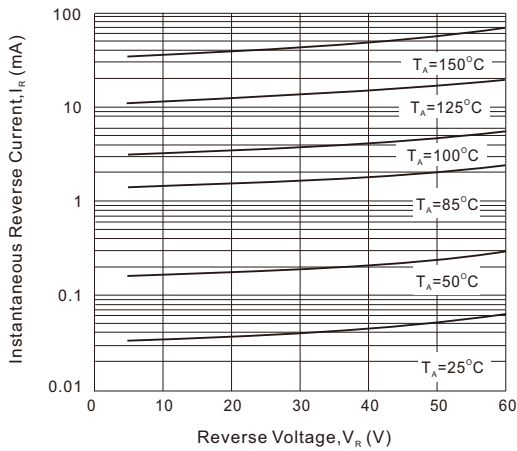


Fig. 4 - Maximum Avalanche Power Curve

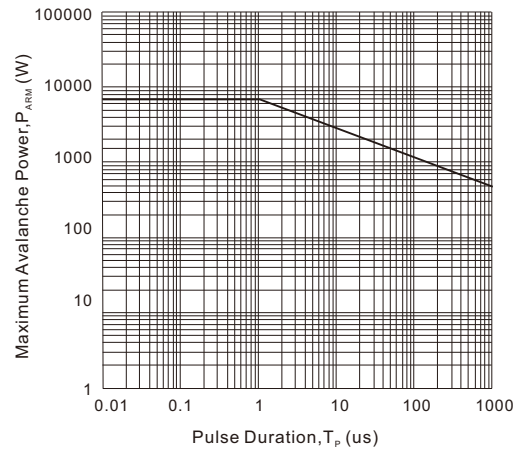
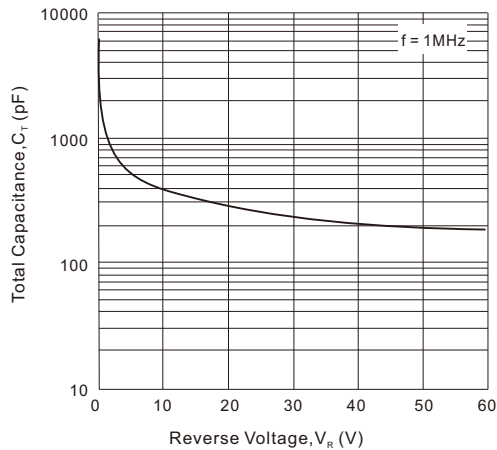


Fig. 5 - Total Capacitance VS. Reverse Voltage (per diode)



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