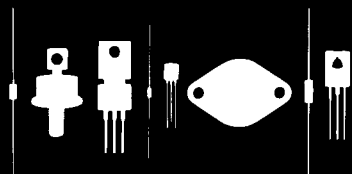


Central
Semiconductor Corp.
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Semiconductor Corp.**

145 Adams Avenue
Hauppauge, New York 11788



CS220-10B
CS220-10D
CS220-10M
CS220-10N

SILICON CONTROLLED RECTIFIER
10 AMP, 200 THRU 800 VOLTS

JEDEC TO-220AB CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CS220-10B series type is an Epoxy Molded Silicon Controlled Rectifier designed for sensing circuit applications and control systems.

MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

	SYMBOL	CS220 -10B	CS220 -10D	CS220 -10M	CS220 -10N	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	800	V
RMS On-State Current ($T_C = 90^\circ\text{C}$)	$I_T(\text{RMS})$			10		A
Peak One Cycle Surge ($t = 10\text{ms}$)	I_{TSM}			100		A
I^2t Value for Fusing ($t = 10\text{ms}$)	I^2t			50		A^2s
Peak Gate Power ($t_p = 10\mu\text{s}$)	P_{GM}			40		W
Average Gate Power Dissipation	$P_{G(AV)}$			1.0		W
Peak Forward Gate Current ($t_p = 10\mu\text{s}$)	I_{FGM}			4.0		A
Peak Forward Gate Voltage ($t_p = 10\mu\text{s}$)	V_{FGM}			16		V
Peak Reverse Gate Voltage ($t_p = 10\mu\text{s}$)	V_{RGM}			5.0		V
Critical Rate of Rise of On-State Current	di/dt			50		$\text{A}/\mu\text{s}$
Storage Temperature	T_{stg}		-40 to +150			$^\circ\text{C}$
Junction Temperature	T_J		-40 to +110			$^\circ\text{C}$
Thermal Resistance	θ_{J-A}			60		$^\circ\text{C}/\text{W}$
Thermal Resistance	θ_{J-C}			2.5		$^\circ\text{C}/\text{W}$

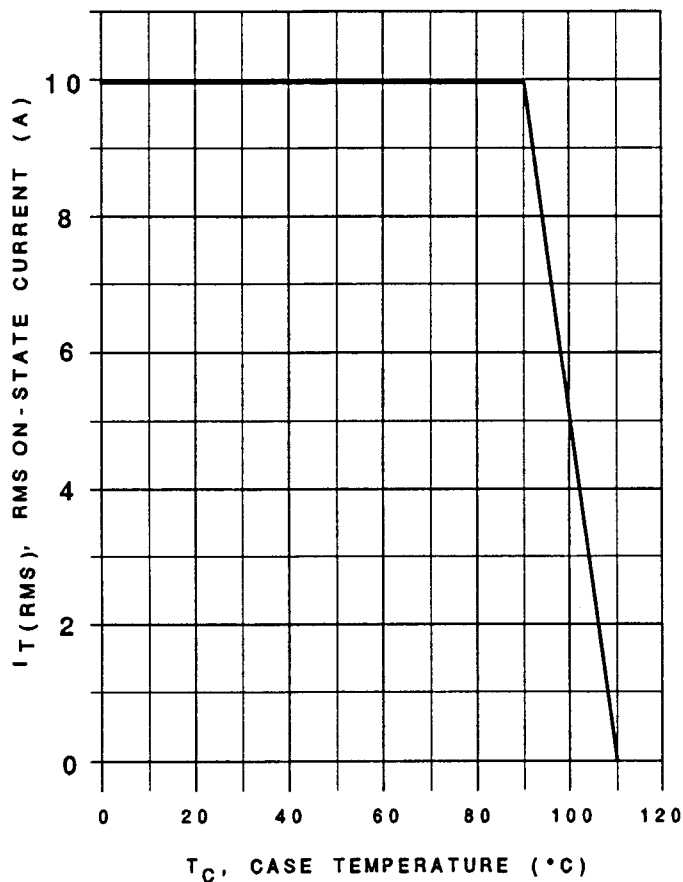
ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}			0.01	mA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, T_C = 110^\circ\text{C}$			2.00	mA
I_{GT}	$V_D = 12\text{V}, R_L = 33\Omega$			15	mA
I_H	$I_T = 100\text{mA}$			30	mA
V_{GT}	$V_D = 12\text{V}, R_L = 33\Omega$			1.50	V
V_{TM}	$I_{TM} = 20\text{A}, t_p = 10\text{ms}$			1.60	V
dv/dt	$V_D = .67 \times V_{DRM}, T_C = 110^\circ\text{C}$	200			$\text{V}/\mu\text{s}$

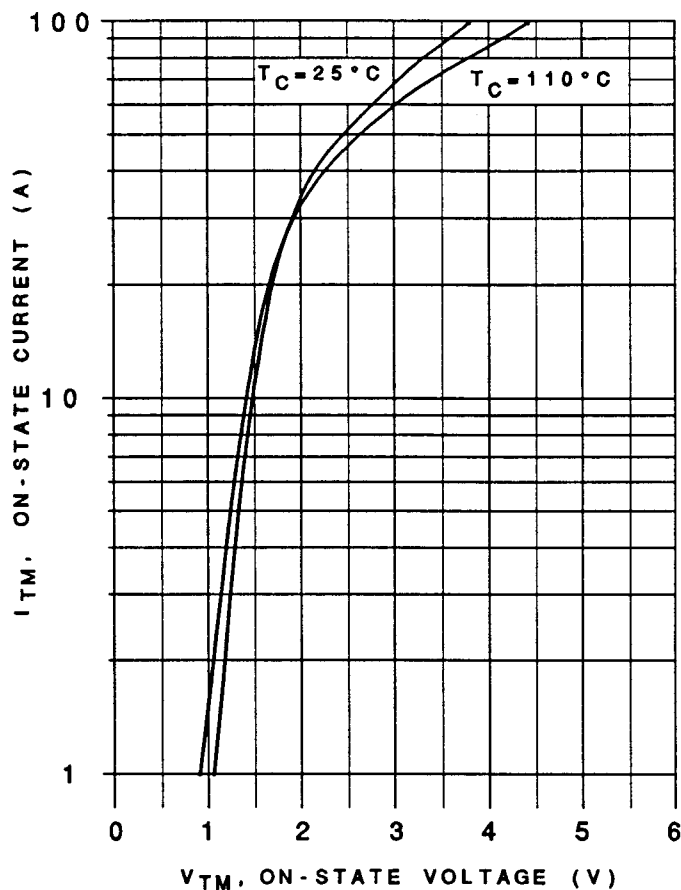
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CS220-10B SERIES RATING AND CHARACTERISTIC CURVES

RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL DIMENSIONS

All Dimensions in inches (mm).

