

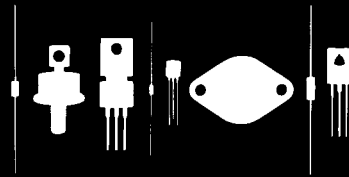
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145 Adams Avenue
Hauppauge, New York 11788



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°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°C)	I _{T(RMS)}			10		A
Peak One Cycle Surge (t = 10ms)	I _{TSM}			100		A
I ² t Value for Fusing (t = 10ms)	I ² t			50		A ² s
Peak Gate Power (tp = 10μs)	P _{GM}			40		W
Average Gate Power Dissipation	P _{G(AV)}			1.0		W
Peak Forward Gate Current (tp = 10μs)	I _{FGM}			4.0		A
Peak Forward Gate Voltage (tp = 10μs)	V _{FGM}			16		V
Peak Reverse Gate Voltage (tp = 10μs)	V _{RGM}			5.0		V
Critical Rate of Rise of On-State Current	di/dt			50		A/μs
Storage Temperature	T _{stg}		-40 to +150			°C
Junction Temperature	T _J		-40 to +110			°C
Thermal Resistance	θ _{J-A}		60			°C/W
Thermal Resistance	θ _{J-C}		2.5			°C/W

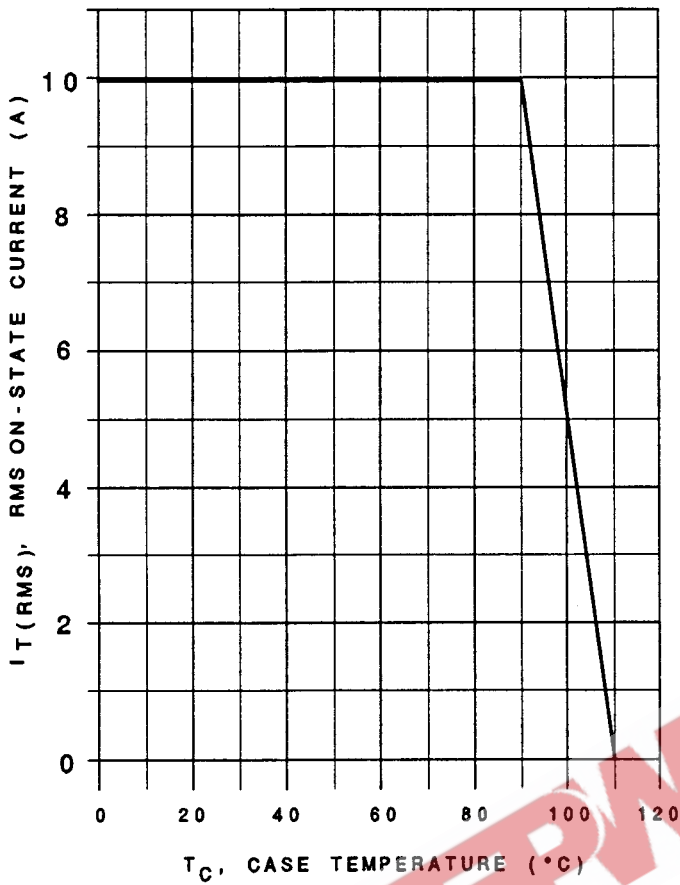
ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

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°C			2.00	mA
I _{GT}	V _D = 12V, R _L = 33Ω			15	mA
I _H	I _T = 100mA			30	mA
V _{GT}	V _D = 12V, R _L = 33Ω			1.50	V
V _{TM}	I _{TM} = 20A, tp = 10ms			1.60	V
dv/dt	V _D = .67 x V _{DRM} , T _C = 110°C	200			V/μs

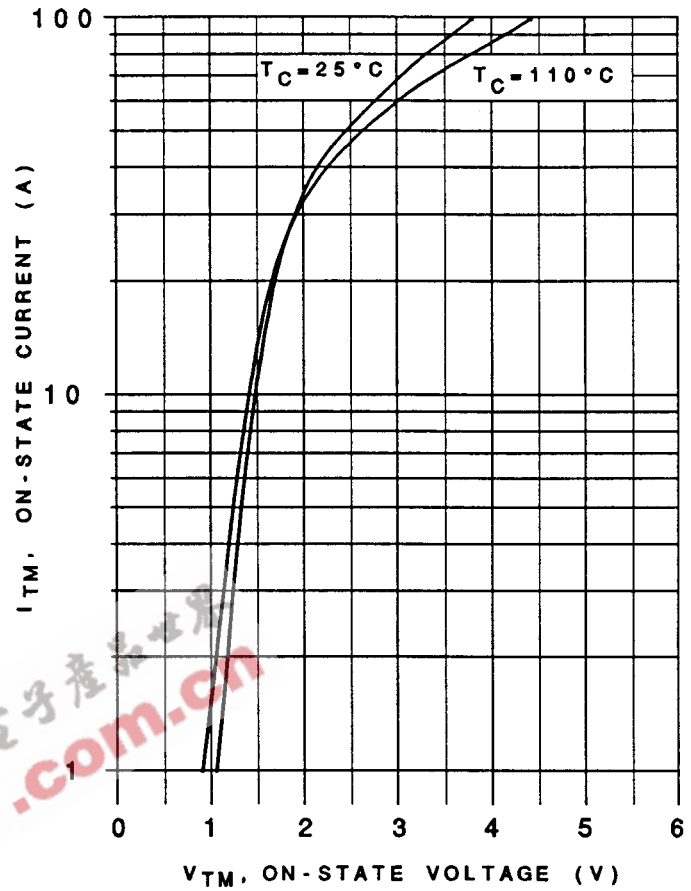
(OVER)

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).

