

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

CS218-35B
CS218-35D
CS218-35M
CS218-35N
CS218-35P
CS218-35PB

SILICON CONTROLLED RECTIFIER
35 AMP, 200 THRU 1200 VOLTS

TO-218 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CS218-35B series type is an Epoxy Molded Silicon SCR designed for sensing circuit applications and control systems.

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

	SYMBOL	CS218 -35B	CS218 -35D	CS218 -35M	CS218 -35N	CS218 -35P	CS218 -35PB	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	800	1000	1200	V
RMS On-State Current ($T_C = 85^\circ\text{C}$)	$I_T(\text{RMS})$				35			A
Peak One Cycle Surge ($t = 10\text{ms}$)	I_{TSM}			400				A
I^2t Value for Fusing ($t = 10\text{ms}$)	I^2t			800				A^2s
Peak Gate Power ($t_p = 10\mu\text{s}$)	P_{GM}			50				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	V_{RGM}			5.0				V
Critical Rate of Rise of On-State Current	di/dt			100				$\text{A}/\mu\text{s}$
Storage Temperature	T_{stg}			-40 to +150				$^\circ\text{C}$
Junction Temperature	T_J			-40 to +125				$^\circ\text{C}$
Thermal Resistance	θ_{J-A}			50				$^\circ\text{C}/\text{W}$
Thermal Resistance	θ_{J-C}			0.8				$^\circ\text{C}/\text{W}$

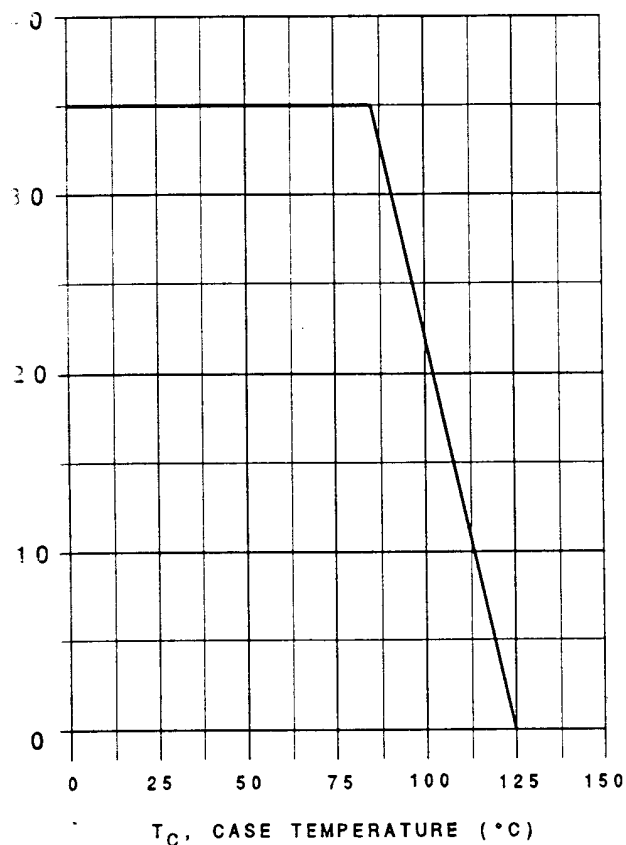
ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}			0.02	mA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, T_C = 125^\circ\text{C}$			6.00	mA
I_{GT}	$V_D = 12\text{V}, R_L = 33\Omega$			50	mA
I_H	$I_T = 500\text{mA}$			75	mA
V_{GT}	$V_D = 12\text{V}, R_L = 33\Omega$			1.50	V
V_{TM}	$I_{TM} = 70\text{A}, t_p = 380\text{ms}$			2.20	V
dv/dt	$V_D = .67 \times V_{DRM}, T_C = 125^\circ\text{C}, V_{DRM} \leq 800\text{V}$	500			$\text{V}/\mu\text{s}$
dv/dt	$V_D = .67 \times V_{DRM}, T_C = 125^\circ\text{C}, V_{DRM} \geq 1000\text{V}$	250			$\text{V}/\mu\text{s}$

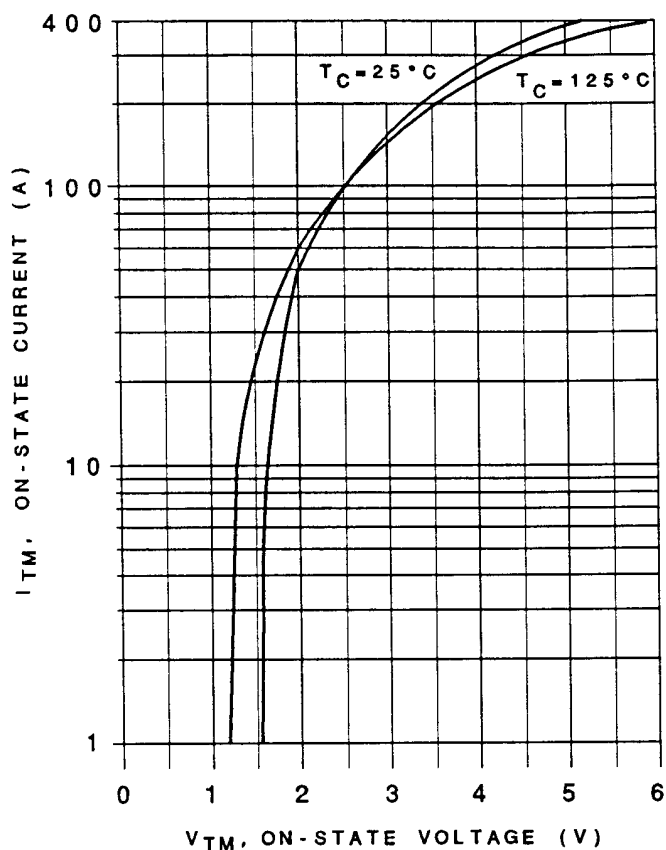
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CS218-35B SERIES RATING AND CHARACTERISTIC CURVES

AS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL OUTLINE

ALL DIMENSIONS IN INCHES (mm).

