

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

CS218-55B
CS218-55D
CS218-55M
CS218-55N
CS218-55P
CS218-55PB

SILICON CONTROLLED RECTIFIER
55 AMP, 200 THRU 1200 VOLTS

TO-218 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CS218-55B series type is an Epoxy Molded Silicon SCR designed for sensing circuit applications and control systems.

MAXIMUM RATINGS (T_C = 25°C unless otherwise noted)

| | SYMBOL | CS218 -55B | CS218 -55D | CS218 -55M | CS218 -55N | CS218 -55P | CS218 -55PB | UNITS |
|--|-------------------------------------|---------------|---------------|---------------|---------------|---------------|----------------|------------------|
| Peak Repetitive Off-State Voltage | V _{DRM} , V _{RRM} | 200 | 400 | 600 | 800 | 1000 | 1200 | V |
| RMS On-State Current (T _C = 75°C) | I _{T(RMS)} | | | | 55 | | | A |
| Peak One Cycle Surge (t = 10ms) | I _{TSM} | | | | 500 | | | A |
| I ² t Value for Fusing (t = 10ms) | I ² t | | | | 1250 | | | 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} | | | | 8.0 | | | A |
| Peak Forward Gate Voltage (tp = 10μs) | V _{FGM} | | | | 16 | | | V |
| Peak Reverse Gate Voltage | V _{RGM} | | | | 5.0 | | | V |
| Critical Rate of Rise of On-State Current | di/dt | | | | 100 | | | A/μs |
| Storage Temperature | T _{stg} | | | | -40 to +150 | | | °C |
| Junction Temperature | T _J | | | | -40 to +125 | | | °C |
| Thermal Resistance | θ _{J-A} | | | | 50 | | | °C/W |
| Thermal Resistance | θ _{J-C} | | | | 0.8 | | | °C/W |

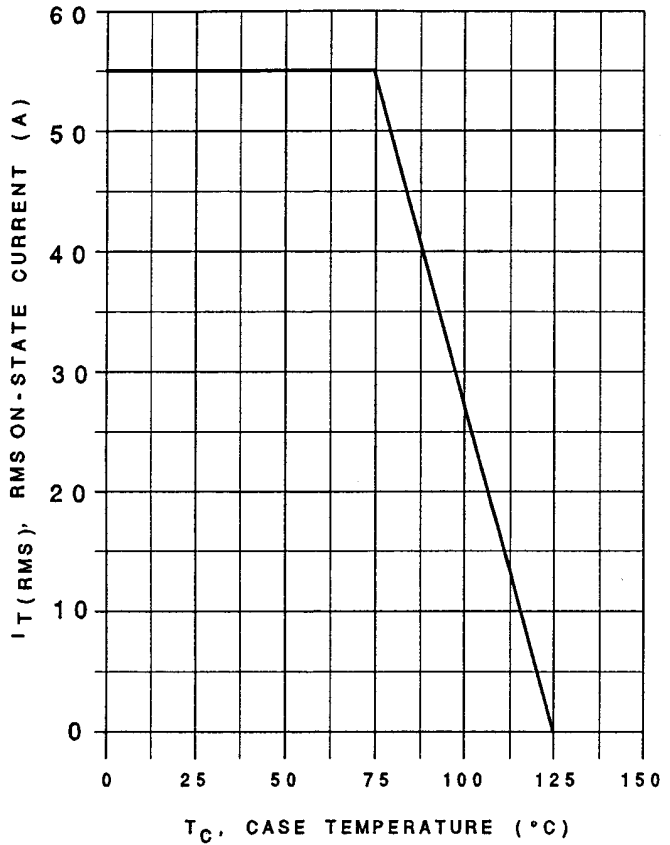
ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-------------------------------------|--|-----|-----|------|-------|
| I _{DRM} , I _{RRM} | Rated V _{DRM} , V _{RRM} | | | 0.02 | mA |
| I _{DRM} , I _{RRM} | Rated V _{DRM} , V _{RRM} , T _C = 125°C | | | 6.00 | mA |
| I _{GT} | V _D = 12V, R _L = 33Ω | | | 80 | mA |
| I _H | I _T = 500mA | | | 150 | mA |
| V _{GT} | V _D = 12V, R _L = 33Ω | | | 1.50 | V |
| V _{TM} | I _{TM} = 110A, tp = 380ms | | | 2.00 | V |
| dv/dt | V _D = .67 x V _{DRM} , T _C = 125°C, V _{DRM} ≤ 800V | 500 | | | V/μs |
| dv/dt | V _D = .67 x V _{DRM} , T _C = 125°C, V _{DRM} ≥ 1000V | 250 | | | V/μs |

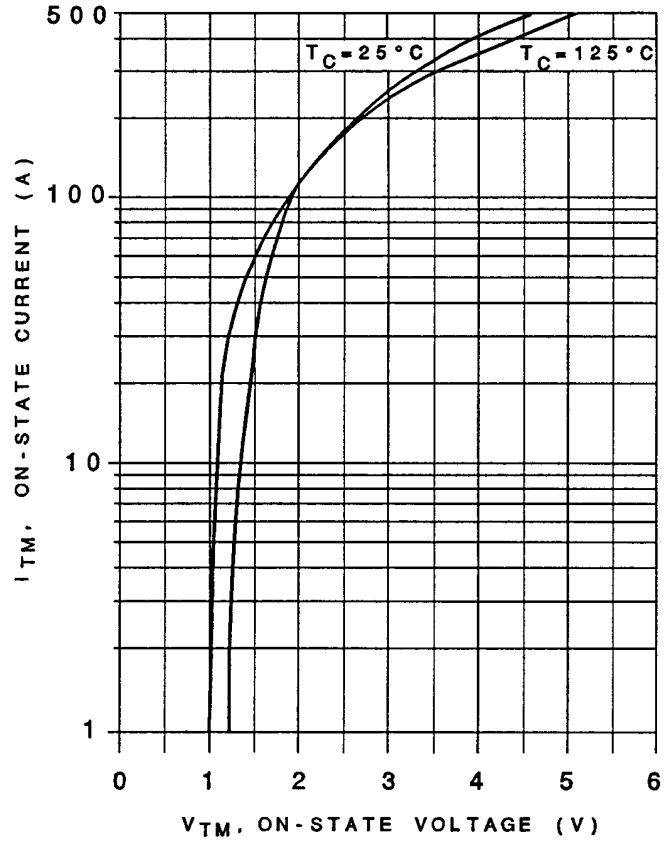
(OVER)

CS218-55B SERIES RATING AND CHARACTERISTIC CURVES

RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL OUTLINE

ALL DIMENSIONS IN INCHES (mm).

