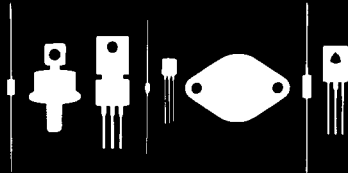


Central
Semiconductor Corp.

**Central
Semiconductor Corp.**
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Semiconductor Corp.**

145 Adams Avenue
Hauppauge, New York 11788



CS3P-40B
CS3P-40D
CS3P-40M
CS3P-40N
CS3P-40P
CS3P-40PB

ISOLATED 40 AMP SCR
200 THRU 1200 VOLTS

TO-3P CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CS3P-40B series types are Epoxy Molded Silicon Controlled Rectifiers mounted on an isolated TO-3 metal platform, designed for sensing circuit applications and control systems .

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

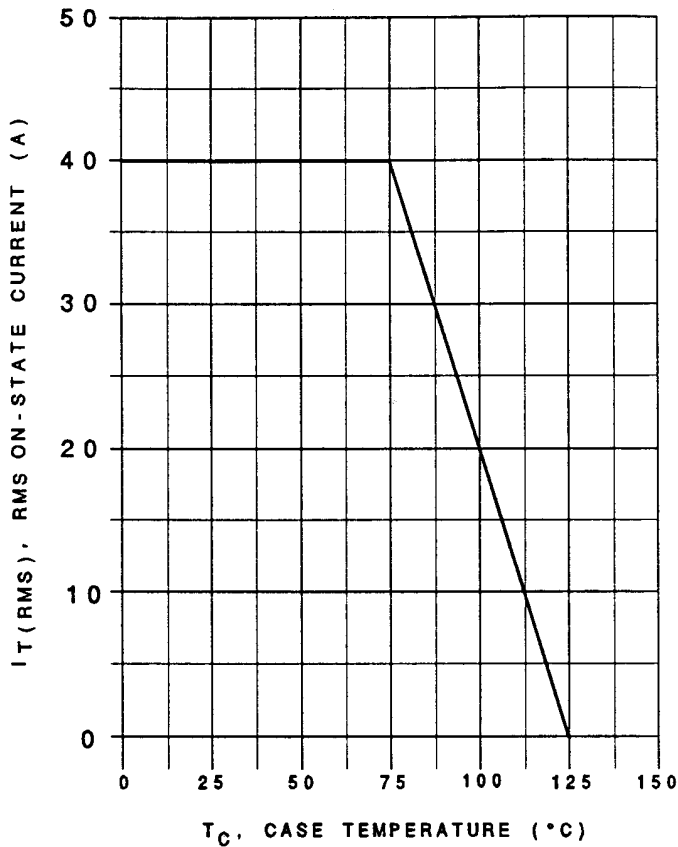
| | SYMBOL | CS3P -40B | CS3P -40D | CS3P -40M | CS3P -40N | CS3P -40P | CS3P -40PB | UNITS |
|--|-------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------------|
| Peak Repetitive Off-State Voltage | V _{DRM} , V _{RRM} | 200 | 400 | 600 | 800 | 1000 | 1200 | V |
| RMS On-State Current (T _C = 75°C) | I _{T(RMS)} | | | | 40 | | | 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} | | | | 50 | | | 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 | | | | 100 | | | A/µs |
| Storage Temperature | T _{stg} | | | | -40 to +150 | | | °C |
| Junction Temperature | T _J | | | | -40 to +125 | | | °C |
| Thermal Resistance | θ _{J-C} | | | | 1.0 | | | °C/W |
| Isolation Voltage | V _{ISO} | | | | 2500 | | | V _(RMS) |

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

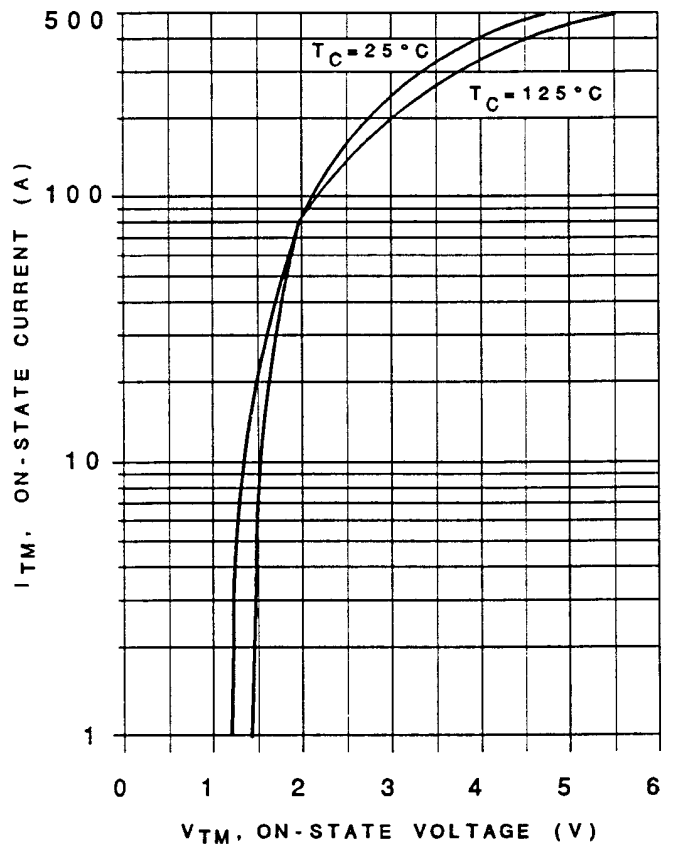
| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-------------------------------------|--|-----|-----|------|-------|
| I _{DRM} , I _{RRM} | Rated V _{DRM} , V _{RRM} | | | 0.02 | mA |
| I _{DRM} , I _{RRM} | Rated V _{DRM} , V _{RRM} , T _C = 125°C | | | 6.00 | mA |
| I _{GT} | V _D = 12V, R _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} = 80A, tp = 10ms | | | 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 |

CS3P-40B SERIES RATING AND CHARACTERISTIC CURVES

RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL OUTLINE

