

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 |

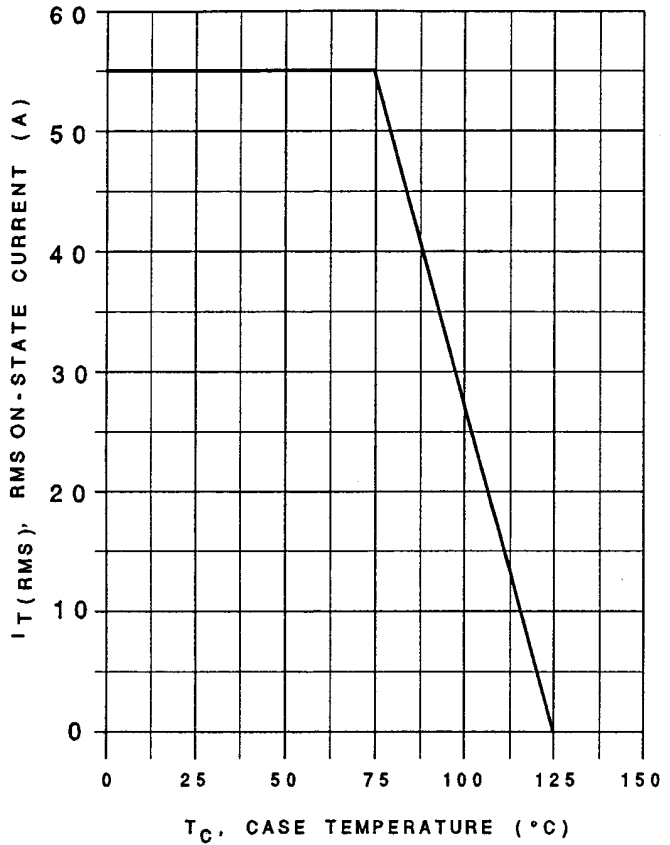
ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

| 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 |

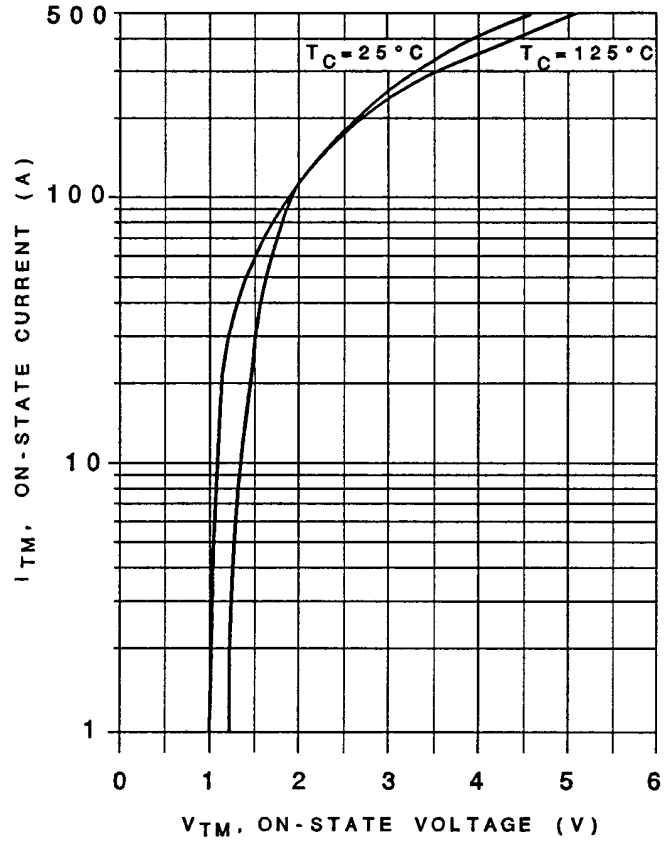
(OVER)

CS218-55B SERIES RATING AND CHARACTERISTIC CURVES

RMS ON-STATE CURRENT vs. CASE TEMPERATURE

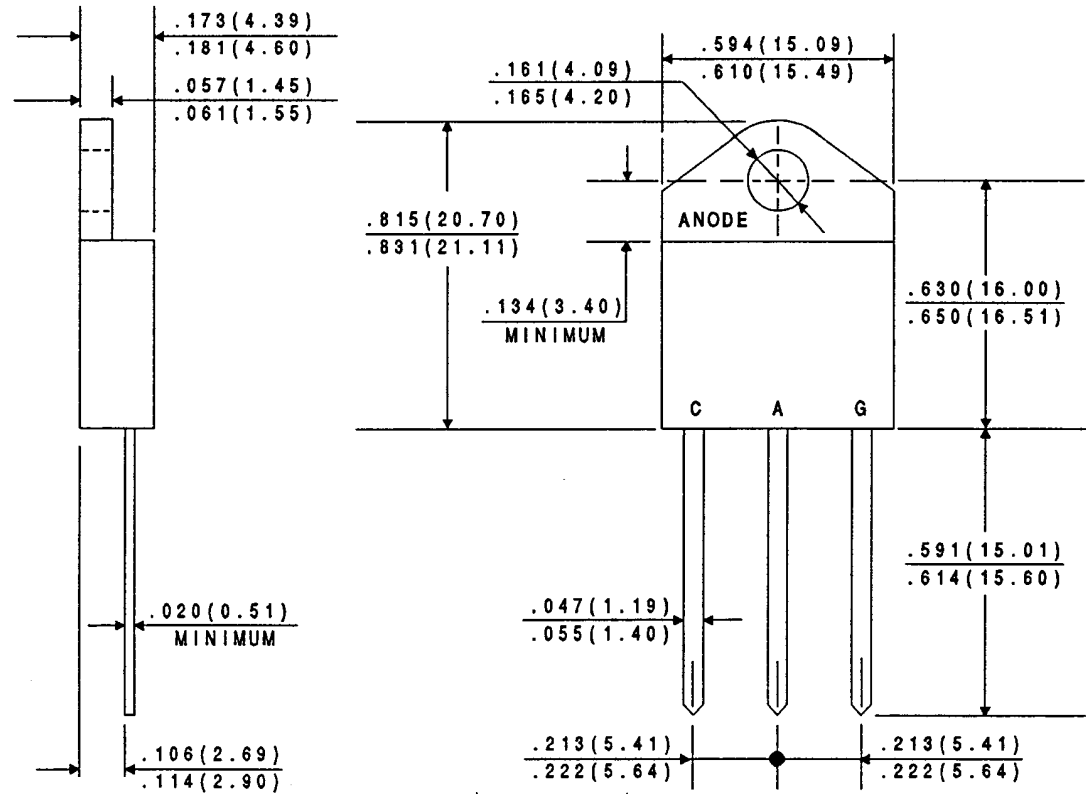


MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL OUTLINE

ALL DIMENSIONS IN INCHES (mm).



OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

Corporate Headquarters & Customer Support Team

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www.centalsemi.com/wwreps

Worldwide Distributors:
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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centalsemi.com/terms

Product End of Life Notification

| | |
|---------------------------|------------------|
| PDN ID: | PDN01022 Rev:001 |
| Notification Date: | 4/07/17 |
| Last Buy Date: | 10/04/16 |
| Last Shipment Date | 4/04/17 |

Summary: All devices manufactured in the TO-218 package are discontinued and now classified as End of Life (EOL). Central is in the process of qualifying replacements for certain TO-218 devices in the TO-247 package; items with planned replacements are shown below. Rev:001 of PDN#01022, April 7, 2017 issued to remove TIP36C and TIP36C SL from the PDN to address market demand. Part numbers TIP36C and TIP36C SL are once again active devices.

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

| <u>Central Part Number</u> | <u>Replacement</u> |
|----------------------------|--------------------|
| BDV64 | N/A |
| BDV64A | N/A |
| BDV64B | N/A |
| BDV65 | N/A |
| BDV65A | N/A |
| BDV65B | N/A |
| BDW83A | N/A |
| BDW83B | N/A |
| BDW83C | N/A |
| BDW84A | N/A |
| BDW84B | N/A |
| BDW84C | N/A |
| BUV47A | N/A |
| BU426 | N/A |
| CEN1356 | N/A |
| CQ218-45B | N/A |
| CQ218-45D | N/A |
| CQ218-45M | N/A |
| CQ218-45N | N/A |
| CQ218I-25B | N/A |
| CQ218I-25D | N/A |
| CQ218I-25M | N/A |
| CQ218I-25N | N/A |
| CQ218I-40B | N/A |
| CQ218I-40D | N/A |
| CQ218I-40M | N/A |
| CQ218I-40N | N/A |
| CS218-35B | N/A |
| CS218-35D | N/A |
| CS218-35M | N/A |
| CS218-35N | N/A |
| CS218-35P | N/A |
| CS218-35PB | N/A |
| CS218-55B | N/A |
| CS218-55D | N/A |

*** CONTINUED ***

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

Product End of Life Notification

| | |
|---------------------------|------------------|
| PDN ID: | PDN01022 Rev:001 |
| Notification Date: | 4/07/17 |
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| Last Shipment Date | 4/04/17 |

*** CONTINUED FROM PRIOR PAGE ***

| <u>Central Part Number</u> | <u>Replacement</u> |
|----------------------------|--------------------|
| CS218-55M | N/A |
| CS218-55N | N/A |
| CS218-55P | N/A |
| CS218-55PB | N/A |
| CS218I-30B | N/A |
| CS218I-30D | N/A |
| CS218I-30M | N/A |
| CS218I-30N | N/A |
| CS218I-30P | N/A |
| CS218I-30PB | N/A |
| CS218I-50B | N/A |
| CS218I-50D | N/A |
| CS218I-50M | N/A |
| CS218I-50N | N/A |
| CS218I-50P | N/A |
| CS218I-50PB | N/A |
| TIP140 | TIP142 TO-247 H |
| TIP141 | TIP142 TO-247 H |
| TIP142 | TIP142 TO-247 H |
| TIP145 | TIP147 TO-247 H |
| TIP146 | TIP147 TO-247 H |
| TIP147 | TIP147 TO-247 H |
| TIP2955 | N/A |
| TIP3055 | N/A |
| TIP33A | TIP35C TO-247 H |
| TIP33B | TIP35C TO-247 H |
| TIP33C | TIP35C TO-247 H |
| TIP34A | TIP36C TO-247 H |
| TIP34B | TIP36C TO-247 H |
| TIP34C | TIP36C TO-247 H |
| TIP35A | TIP35C TO-247 H |
| TIP35B | TIP35C TO-247 H |
| TIP35C | TIP35C TO-247 H |
| TIP35C SL | TIP35C TO-247 H |
| TIP36 | TIP36C TO-247 H |
| TIP36A | TIP36C TO-247 H |
| TIP36B | TIP36C TO-247 H |
| TIP36B SL | TIP36C TO-247 H |

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centrasemi.com.

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