CS218I-50B CS218I-50N CS218I-50D CS218I-50P CS218I-50M CS218I-50PB

ISOLATED TAB SILICON CONTROLLED RECTIFIERS 50 AMP, 200 THRU 1200 VOLT





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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CS218I-50B series types are epoxy molded SCRs designed for sensing circuit and control system applications. This device is mounted in a TO-218 case with an isolated mounting tab.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T _C =25°C unless otherwise noted) SYMBOL -50B -5				-50D	CS2 -50M		-50P	EADD	UNITS
Peak Repetitive Off-State Voltage		VDRM, VRRM	<u>-50B</u> 200	400	600	<u>-50N</u> 800	1000	-50PB 1200	V
RMS On-State Current (T _C =75°C)		I _T (RMS)		50				Α	
Peak One Cycle Surge Current, t=10ms		ITSM		500				Α	
I ² t Value for F	using, t=10ms	l ² t			12	50			A^2s
Peak Gate Power Dissipation, tp=10μs		P_GM			4	0			W
Average Gate Power Dissipation		P _{G(AV)}	1.0				W		
Peak Forward	I Gate Current, tp=10μs	IFGM	8.0				Α		
Peak Forward	l Gate Voltage, tp=10μs	V_{FGM}	16				V		
Peak Reverse Gate Voltage		V_{RGM}	5.0				V		
Critical Rate of	of Rise of On-State Current	di/dt		100				A/µs	
Operating Junction Temperature		T_J		-40 to +125			°C		
Storage Temperature		T _{stg}	-40 to +150				°C		
Thermal Resistance		$\Theta_{\sf JA}$	50			°C/W			
Thermal Resistance		Θ JC			0.	9			°C/W
Isolation Voltage		V_{ISO}			25	00			V _(RMS)
ELECTRICAL SYMBOL IDRM, IRRM	CHARACTERISTICS: (T _C TEST CONDITIONS Rated V _{DRM} , V _{RRM}	=25°C unless oth		noted) IN		MA) 20	(UNITS μΑ
IDRM, IRRM		=125°C				6.0			mA
I _{GT}	$V_D=12V$, $R_L=33\Omega$					80			mA
lΗ	I _T =500mA					80			mA
V_{GT}	V_D =12V, R_L =33 Ω					1.5			V
V_{TM}	I _{TM} =100A, tp=380ms					1.9			V
dv/dt	V _D =%Rated V _{DRM} ,								
	R _{GK} =∞, T _C =125°C (200	V thru 800V)	5	00					V/µs
dv/dt	V _D =%Rated V _{DRM} ,								
	R _{GK} =∞, T _C =125°C (100	0V, 1200V)	2	50					V/µs

R1 (4-November 2013)

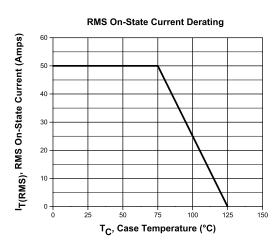
CS218I-50B CS218I-50N CS218I-50D CS218I-50P

CS218I-50M CS218I-50PB

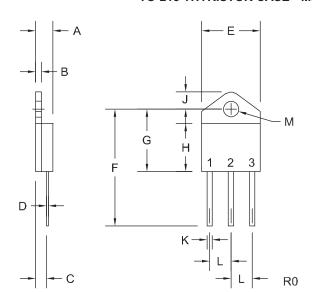
ISOLATED TAB SILICON CONTROLLED RECTIFIERS 50 AMP, 200 THRU 1200 VOLT



TYPICAL ELECTRICAL CHARACTERISTICS



TO-218 THYRISTOR CASE - MECHANICAL OUTLINE



DIMENSIONS						
	INC	HES	MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
Α	0.173	0.181	4.39	4.60		
В	0.057	0.061	1.45	1.55		
С	0.106	0.114	2.69	2.90		
D	0.020	-	0.51	-		
E	0.594	0.610	15.09	15.49		
F	1.220		30.99			
G	0.630	0.650	16.00	16.51		
Н	-	0.500	-	12.70		
J	0.155	0.181	3.94	4.60		
K	0.047	0.055	1.19	1.40		
L	0.213	0.222	5.40	5.64		
М	0.160	0.165	4.06	4.20		

TO-218 Thyristor (REV: R0)

LEAD CODE:

- 1) Cathode
- 2) Anode
- 3) Gate

Tab is isolated from all leads

MARKING: FULL PART NUMBER

R1 (4-November 2013)

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 guick 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

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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.

Central Part Number	Replacement
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.

CCC785 REV 002



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

*** CONTINUED FROM PRIOR PAGE ***

Central Part Number	Replacement	
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	Н
TIP141	TIP142 TO-247	Н
TIP142	TIP142 TO-247	Н
TIP145	TIP147 TO-247	Н
TIP146	TIP147 TO-247	Н
TIP147	TIP147 TO-247	Н
TIP2955	N/A	
TIP3055	N/A	
TIP33A	TIP35C TO-247	Н
TIP33B	TIP35C TO-247	Н
TIP33C	TIP35C TO-247	Н
TIP34A	TIP36C TO-247	Н
TIP34B	TIP36C TO-247	Н
TIP34C	TIP36C TO-247	Н
TIP35A	TIP35C TO-247	Н
TIP35B	TIP35C TO-247	Н
TIP35C	TIP35C TO-247	Н
TIP35C SL	TIP35C TO-247	Н
TIP36	TIP36C TO-247	Н
TIP36A	TIP36C TO-247	Н
TIP36B	TIP36C TO-247	Н
TIP36B SL	TIP36C TO-247	Н

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@centralsemi.com.

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.

CCC785 REV 002