

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N3668

2N3669

2N3670

2N4103

SILICON CONTROLLED RECTIFIER

16 AMPS

220 THRU 800 VOLTS

JEDEC TO-3 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3668, 2N3669, 2N3670, 2N4103 types are hermetically sealed silicon SCR's designed for sensing circuit applications and control systems. Higher voltage devices and electrical selections are available on special order.

## MAXIMUM RATINGS ( $T_C=25^\circ$ unless otherwise noted)

	SYMBOL	2N3668	2N3669	2N3670	2N4103	UNIT
Peak Repetitive Off-State Voltage	$V_{RRM}$	100	200	400	600	V
Peak Repetitive Off-State Voltage	$V_{DRM}$	200	400	600	800	V
RMS On-State Current ( $T_C=90^\circ\text{C}$ )	$I_T(\text{RMS})$			16		A
Peak One Cycle Surge (60Hz, $T_C=80^\circ\text{C}$ )	$I_{TSM}$			200		A
Peak Gate Current	$I_{GM}$			4.0		A
Average Gate Power Dissipation	$P_{G(AV)}$			0.5		W
Operating and Storage						
Junction Temperature	$T_J, T_{STG}$		-40 TO +125			$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$			1.7		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
$I_{RRM}$	$V_R=\text{Rated } V_{RRM}, T_C=100^\circ\text{C}$			1.0	mA
$I_{DRM}$	$V_D=\text{Rated } V_{DRM}, T_C=100^\circ\text{C}$			2.0	mA
$V_{TM}$	$I_T=25\text{A}$			1.8	V
$I_{GT}$	$V_D=7.0\text{V}$			40	mA
$V_{GT}$	$V_D=7.0\text{V}$	1.0		2.0	V
$I_H$	$R_G=1.0\text{k}\Omega$	0.5		50	mA
$dv/dt$	$V_D=0.67 \times V_{DRM}, R_G=1.0\text{k}\Omega, T_C=100^\circ\text{C}$	10	400		V/ $\mu\text{s}$
$t_{gd}$	$I_G=125\text{mA}, di_G/dt=1.25\text{A}/\mu\text{s}$			500	ns
$t_q$	$V_D=0.67 \times V_{DRM}, V_R=35\text{V}, I_T=10\text{A}, T_C=90^\circ\text{C}$			50	$\mu\text{s}$