

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

www.centrasemi.com

CS65-70B
CS65-70D
CS65-70M
CS65-70N
CS65-70P
CS65-70PB

SILICON CONTROLLED RECTIFIER
70 AMPS RMS, 200 THRU 1200 VOLTS

TO-65 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CS65-70B series types are High Power Silicon Controlled Rectifiers designed for phase control applications.

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

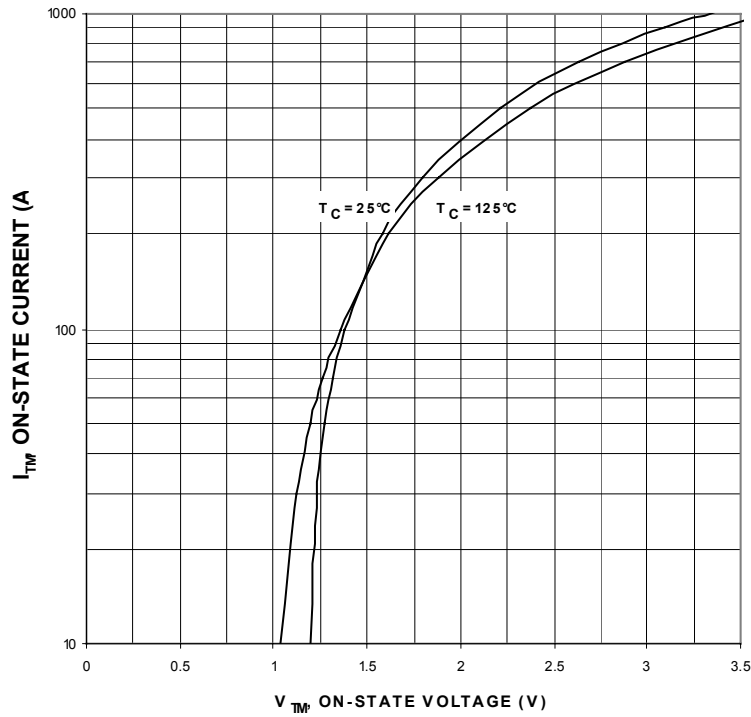
	SYMBOL	CS65 -70B	CS65 -70D	CS65 -70M	CS65 -70N	CS65 -70P	CS65 -70PB	UNITS
Peak Repetitive Off-State Voltage	V _{DRM} , V _{RRM}	200	400	600	800	1000	1200	V
Peak Non-Repetitive Reverse Voltage	V _{RSM}	300	500	700	900	1100	1300	V
RMS On-State Current (T _C =102°C)	I _{T(RMS)}				63			A
Average On-State Current (T _C =102°C)	I _{T(AV)}				40			A
Peak One Cycle Surge (60Hz)	I _{TSM}				1000			A
I ² t Value for Fusing (t=8.3ms)	I ² t				4100			A ² s
Peak Forward Gate Voltage	V _{FGM}				20			V
Peak Reverse Gate Voltage	V _{RGM}				10			V
Peak Gate Power	P _{GM}				10			W
Average Gate Power (tp=10µs)	P _{G(AV)}				1.0			W
Peak Gate Current	I _{GM}				3.0			A
Critical Rate of Rise of On-State Current	di/dt				200			A/µs
Storage Temperature	T _{stg}				-65 to +150			°C
Junction Temperature	T _J				-65 to +125			°C
Thermal Resistance	Θ _{J-C}				0.35			°C/W

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

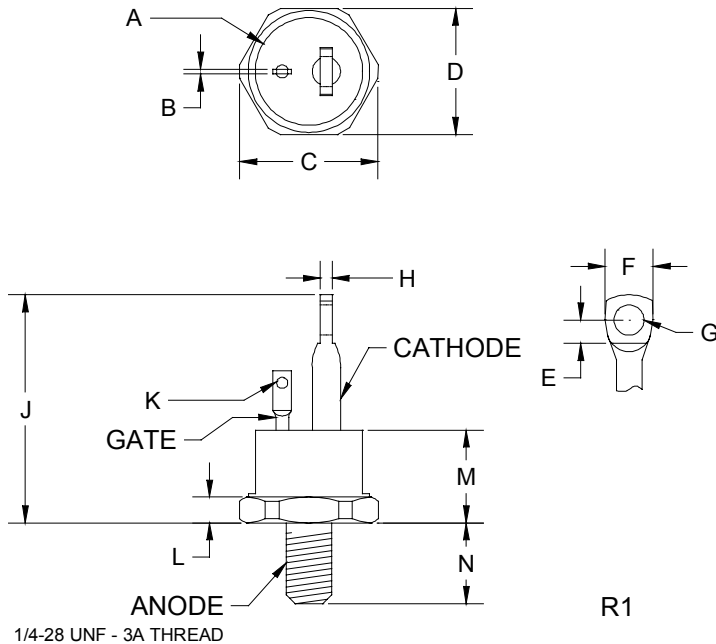
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C			6.0	mA
I _{GT}	V _D =12V, R _L =33Ω			100	mA
I _H	I _T =500mA			200	mA
V _{GT}	V _D =12V, R _L =33Ω			3.0	V
V _{TM}	I _{TM} =500A			3.0	V
dv/dt	V _D =.67 x V _{DRM} , T _C =125°C	200			V/µs

(SEE REVERSE SIDE)

MAXIMUM ON-STATE CHARACTERISTICS



TO-65 PACKAGE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	-	0.667	-	16.94
B	0.025	0.030	0.64	0.76
C	-	0.770	-	19.56
D	0.677	0.685	17.20	17.40
E	0.120	-	3.05	-
F	0.200	0.300	5.08	7.62
G (DIA)	0.145	0.155	3.68	3.93
H	0.065	0.085	1.65	2.15
J	1.200	1.250	30.48	31.75
K (DIA)	0.055	0.065	1.40	1.65
L	0.115	0.155	2.92	3.94
M	-	0.515	-	13.08
N	0.427	0.447	10.84	11.35

TO-65 (REV: R1)

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