DATA SHEET

Central™
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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)

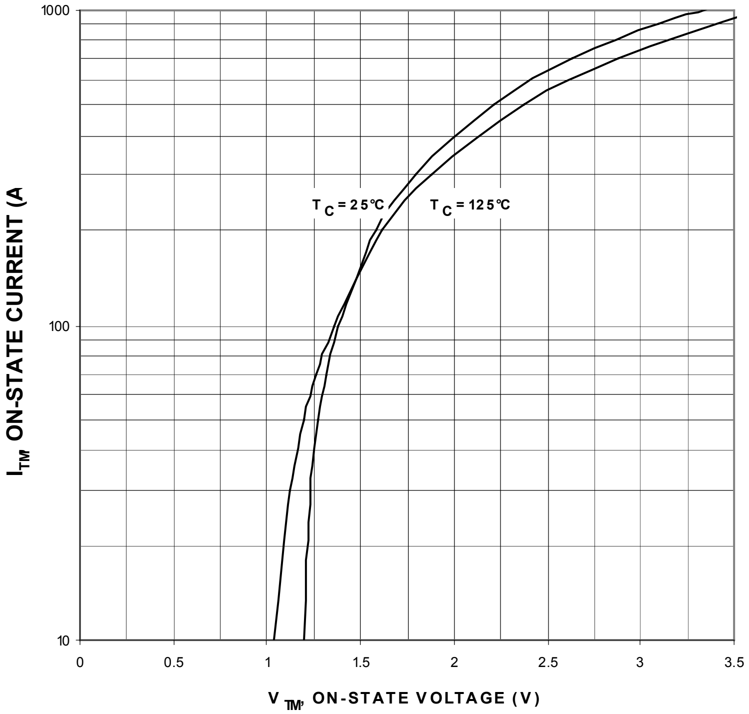
	SYMBOL	CS65 -70B	CS65 -70D	CS65 -70M	CS65 -70N	CS65 -70P	CS65 -70PB	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	800	1000	1200	V
Peak Non-Repetitive Reverse Voltage	V_{RSM}	300	500	700	900	1100	1300	V
RMS On-State Current (T_C=102°C)	$I_{T(RMS)}$	63						A
Average On-State Current (T_C=102°C)	$I_{T(AV)}$	40						A
Peak One Cycle Surge (60Hz)	I_{TSM}	1000						A
I^2t Value for Fusing (t=8.3ms)	I^2t	4100						A^2s
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	$\Theta_{J\text{-}C}$	0.35						°C/W

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

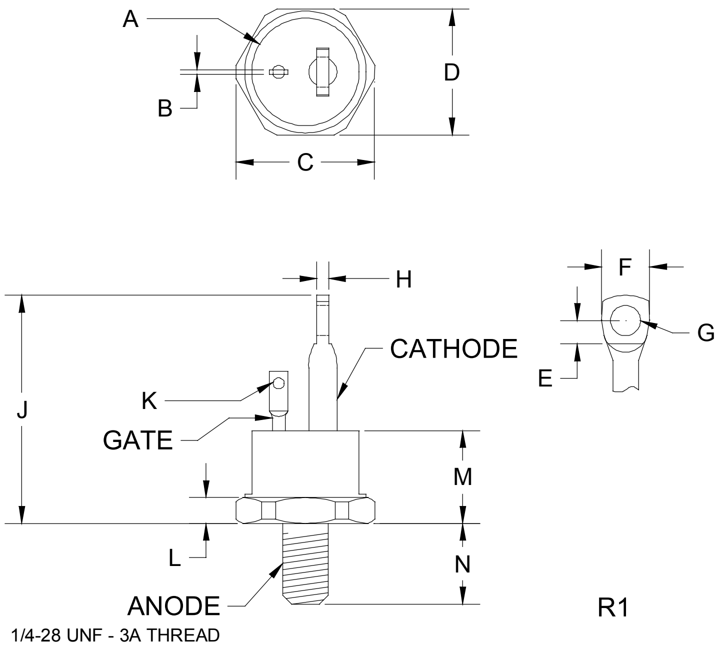
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}, T_C=125°C			6.0	mA
I_{GT}	V_D=12V, R_L=33Ω			100	mA
I_H	I_T=500mA			200	mA
V_{GT}	V_D=12V, R_L=33Ω			3.0	V
V_{TM}	I_{TM}=500A			3.0	V
dv/dt	V_D=.67 x V_{DRM}, T_C=125°C	200			V/μs

(SEE REVERSE SIDE)

MAXIMUM ON-STATE CHARACTERISTICS



TO-65 PACKAGE - MECHANICAL OUTLINE



R1

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)		