



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

2N681,A THRU 2N692,A

SILICON CONTROLLED RECTIFIER
25 AMPS, 25 THRU 800 VOLTS

JEDEC TO-48 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N681,A Series types are Silicon Controlled Rectifiers designed for phase control applications.

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

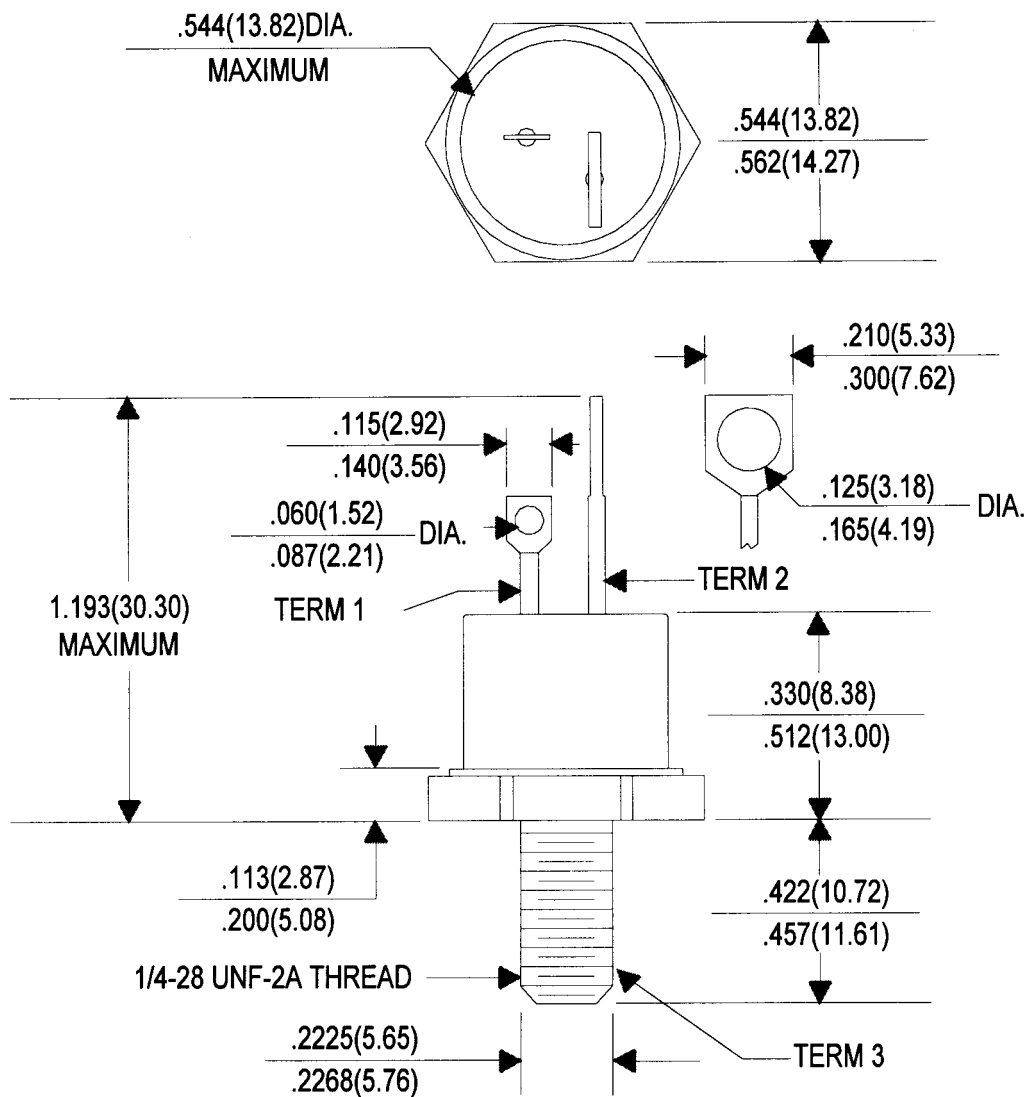
	2N681,A	2N682,A	2N683,A	2N684,A	2N685,A	2N686,A	2N687,A	2N688,A	2N689,A	2N690,A	2N691,A	2N692,A	UNITS
V _{DRM}	25	50	100	150	200	250	300	400	500	600	700	800	V
V _{RRM}	25	50	100	150	200	250	300	400	500	600	700	800	V
V _{RSM}	25	50	100	150	200	250	300	400	500	600	700	800	V
RMS On-State Current (T _C =70°C)					I _{T(RMS)}				25				A
Peak One Cycle Surge Current (60Hz)					I _{TSM}				200				A
Peak Gate Power Dissipation					P _{GM}				5.0				W
Average Gate Power Dissipation					P _{G(AV)}				0.5				W
Storage Temperature					T _{stg}				-65 to +150				°C
Operating Junction Temperature					T _J				-65 to +125				°C
Thermal Resistance, Junction to Case					θ _{JC}				1.5				°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} , T _C =125°C (2N681,A, 2N682, 2N683, 2N684,A)			13	mA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C (2N685,A)			12	mA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C (2N686,A)			11	mA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C (2N687,A)			10	mA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C (2N688,A)			8.0	mA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C (2N689,A)			6.0	mA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C (2N690,A)			5.0	mA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C (2N691,A)			4.5	mA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C (2N692,A)			4.0	mA
I _{GT}	V _D =12V, R _L =50Ω			40	mA
V _{GT}	V _D =12V, R _L =50Ω			2.0	V
V _{TM}	I _{TM} =50A, PW=1.0ms, D.C=2.0%			2.0	V
I _H	V _D =7.0V, R _{GK} =1KΩ (2N681 thru 2N692)			100	mA
I _H	V _D =7.0V, R _{GK} =1KΩ (2N681A thru 2N692A)			50	mA
dv/dt	Rated V _{DRM} , T _C =125°C		100		V/μs
t _{on}	I _F =10A, I _G =200mA		2.0		μs
t _{off}	I _F =10A, I _G =200mA		15		μs

(See Reverse Side)

JEDEC TO-48 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

LEAD CODE:

TERM 1) GATE
TERM 2) CATHODE
TERM 3) ANODE

CentralTM
Semiconductor Corp.

PRODUCT SUPPORT

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

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- Consolidated shipping options
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- Custom product packing

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- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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