

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

www.centralsemi.com

C103Y
C103YY
C103A
C103B

**SILICON CONTROLLED RECTIFIER
0.8 AMP, 30 THRU 200 VOLTS**

TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR C103 Series types are Epoxy Molded Silicon Controlled Rectifiers designed for control systems and sensing circuit applications.

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

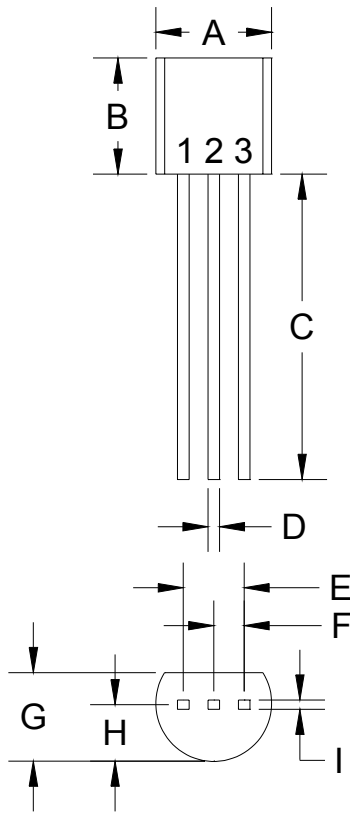
	SYMBOL	C103Y	C103YY	C103A	C103B	UNITS
Peak Repetitive Off-State Voltage	V _{DRM} , V _{RRM}	30	60	100	200	V
RMS On-State Current (T _C =60°C)	I _{T(RMS)}		0.8			A
Peak One Cycle Surge	I _{TSM}		8.0			A
Peak Forward Gate Current	I _{GM}		0.5			A
Peak Reverse Gate Voltage	V _{GM}		8.0			V
Peak Gate Power Dissipation (tp=8.3ms)	P _{GM}		1.0			W
Average Gate Power Dissipation	P _{G(AV)}		0.01			W
Storage Temperature	T _{stg}		-65 to +150			°C
Junction Temperature	T _J		-65 to +125			°C

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} , R _{GK} =1KΩ			1.0	μA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C =125°C, R _{GK} =1KΩ			50	μA
I _{GT}	V _D =6.0V, R _L =100Ω, R _{GK} =1KΩ			200	μA
I _{GT}	V _D =6.0V, R _L =100Ω, R _{GK} =1KΩ, T _C =-65°C			500	μA
I _H	R _{GK} =1KΩ			5.0	mA
I _H	R _{GK} =1KΩ, T _C =-65°C			10	mA
V _{GT}	V _D =6.0V, R _L =100Ω			0.8	V
V _{GT}	V _D =6.0V, R _L =100Ω, T _C =-65°C			1.0	V
V _{GT}	V _D =6.0V, R _L =1KΩ, T _C =125°C	0.1			V
V _{TM}	I _{TM} =1.0A			1.5	V
dv/dt	V _D =V _{DRM} , T _C =125°C, R _{GK} =1KΩ		20		V/μs

(SEE REVERSE SIDE)

TO-92 PACKAGE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

Lead Code: 1) Anode
 2) Gate
 3) Cathode

R1

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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 quick 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

Corporate Headquarters & Customer Support Team

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