BRX44 BRX47
BRX45 BRX48
BRX46 BRX49

SILICON CONTROLLED RECTIFIER
0.8 AMP, 30 THRU 400 VOLTS

TO-92 CASE

Central™
Semiconductor Corp.

DESCRIPTION:
The CENTRAL SEMICONDUCTOR BRX44 series types are PNPN Silicon Controlled Rectifiers manufactured in a TO-92 case, designed for control systems and sensing circuit applications.

MARKING CODE: FULL PART NUMBER

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

	SYMBOL	BRX44	BRX45	BRX46	BRX47	BRX48	BRX49	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	30	60	100	200	300	400	V
RMS On-State Current (T_C=40°C)	$I_{T(RMS)}$			0.8				A
Average On-State Current (T_C=40°C)	$I_{T(AV)}$			0.5				A
Nonrept. On-State Current (T_C =60°C)	I_{TSM}			10				A
Fusing Current (t=10ms)	I^2t			0.24				A^2s
Peak Reverse Gate Voltage (I_{GR}=10μA)	V_{GRM}			8.0				V
Peak Gate Current (t=10μs)	I_{GM}			1.0				A
Peak Gate Dissipation (t=10μs)	P_{GM}			2.0				W
Gate Dissipation (t=20ms)	$P_{G\ (AV)}$			0.1				W
Operating and Storage Junction Temperature	T_J, T_{stg}			-40 to +125				°C
Thermal Resistance	Θ_{JC}			100				°C/W
Thermal Resistance	Θ_{JA}			200				°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}, R_{GK}=1.0KΩ, T_C=25°C		1.0	μA
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}, R_{GK}=1.0KΩ, T_C=125°C		0.1	mA
V_{TM}	I_T=1.0A		1.7	V
I_{GT}	V_D=6.0V, R_L=10Ω		200	μA
V_{GT}	V_D=6.0V, R_L=10Ω		0.8	V
I_H	R_{GK}=1.0KΩ		5.0	mA
I_L	R_{GK}=1.0KΩ		6.0	mA
dv/dt	V_D=0.67V x V_{DRM}, R_{GK}=1.0KΩ, T_C=125°C	100		V/μs
di/dt	I_G= 10mA, di_G/dt=0.1A/μs, T_C=125°C	30		A/μs

R0 (27-April 2004)

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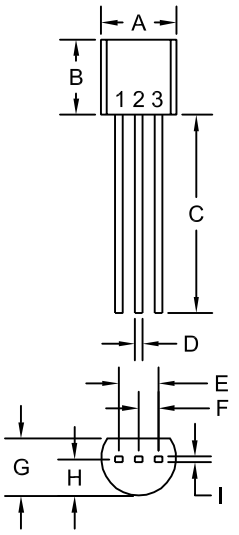
TO-92 CASE - MECHANICAL OUTLINE



R1

LEAD CODE:
1) ANODE
2) GATE
3) CATHODE

MARKING CODE:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)

R0 (27-April 2004)