



**SOLID STATE INC.**

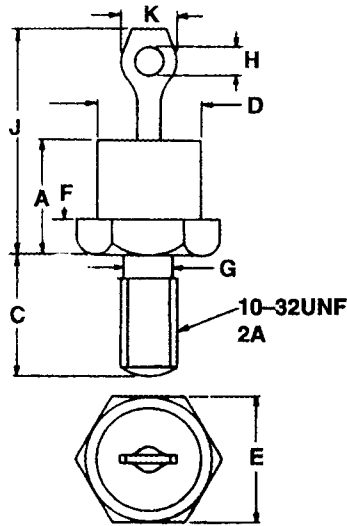
46 FARRAND STREET  
BLOOMFIELD, NEW JERSEY 07003

www.solidstateinc.com

**BZY93 SERIES**

**MECHANICAL DATA**

Dimensions in mm(inches)



**VOLTAGE REGULATOR  
DIODES**

**FEATURES**

The BZY93 series is a range of medium power silicon voltage regulator diodes for general pupose use in a DO-4 outline metal case encapsulation for stud mounting.

Both polarity types are available, BZY93C having stud cathode and BZY93C-R having stud anode.

Dim.	Min.	Nom.	Max.
A	-	-	10.28
C	10.72	-	11.50
D	-	-	10.77Ø
E	10.80Ø	-	11.10Ø
F	-	-	4.40
G	4.20Ø	-	4.80Ø
H	1.60Ø	-	1.80Ø
J	-	-	20.32
K	-	-	6.35

**ABSOLUTE MAXIMUM RATINGS**

$I_{ZM}max.$		20A
$I_{FRM}max.$		15A
$I_{F(AV)}max.$	Averaged over any 20ms period	5A
$P_{TOT}max.$	$T_{MB} = 75^{\circ}C$	20W
	$T_{MB} = 100^{\circ}C$	15W
$P_{Z(sur)}max.$	$T_{MB} = 75^{\circ}C$	500W
$T_{STG}$	Storage Temperature Range	-55 to +175°C
$T_{J}max.$	Maximum Junction Temperature	175°C
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	5°C/W
$R_{\theta J-MB}$	Thermal Resistance Junction to Mounting Base	50°C/W
$R_{\theta MB-H}$	Thermal Resistance Mounting Base to Heatsink	0.6°C/W
	Derating factor $T_{MB} > 75^{\circ}C$	0.2W/°C



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**ELECTRICAL CHARACTERISTICS (T<sub>mb</sub> = 25°C) UNLESS OTHERWISE STATED**

Product	Test I <sub>Z</sub> (A)	V <sub>Z</sub> <sup>1</sup> @ Test I <sub>Z</sub> (V)		R <sub>Z</sub> <sup>1</sup> @ Test I <sub>Z</sub> (Ω)		S <sub>Z</sub> <sup>1</sup> (mV/°C)	I <sub>R</sub> At (μA)	V <sub>R</sub> (V)
		Min.	Max.	Typ.	Max.	Typ.	Max.	
C6V8	2.0	6.4	7.2	0.04	0.2	2.5	100	2.0
C7V5	2.0	7.0	7.9	0.04	0.3	3.0	100	2.0
C8V2	2.0	7.7	8.7	0.05	0.3	4.0	100	5.6
C9V1	1.0	8.5	9.6	0.07	0.5	5.0	50	6.2
C10	1.0	9.4	10.6	0.07	0.5	7.0	50	6.8
C11	1.0	10.4	11.6	0.08	1.0	7.5	50	7.5
C12	1.0	11.4	12.7	0.08	1.0	8.0	50	8.2
C13	1.0	12.4	14.1	0.08	1.0	8.5	50	9.1
C15	1.0	13.8	15.6	0.10	1.2	10.0	50	10.0
C16	0.5	15.3	17.1	0.18	1.2	11.0	50	11.0
C18	0.5	16.8	19.1	0.20	1.5	12.0	50	12.0
C20	0.5	18.8	21.2	0.20	1.5	14.0	50	13.0
C22	0.5	20.8	23.3	0.21	1.8	16.0	50	15.0
C24	0.5	22.7	25.9	0.22	2.0	18.0	50	16.0
C27	0.5	25.1	28.9	0.25	2.0	21.0	50	18.0
C30	0.5	28.0	32.0	0.30	2.5	25.0	50	20.0
C33	0.5	31.0	35.0	0.32	3.0	30.0	50	22.0
C36	0.2	34.0	38.0	0.75	4.0	32.0	50	24.0
C39	0.2	37.0	41.0	0.85	5.0	35.0	50	27.0
C43	0.2	40.0	46.0	0.9	6.5	40.0	50	30.0
C47	0.2	44.0	50.0	1.0	7.0	45.0	50	33.0
C51	0.2	48.0	54.0	1.2	7.5	50.0	50	36.0
C56	0.2	52.0	60.0	1.3	8.0	55.0	50	39.0
C62	0.2	58.0	66.0	1.5	9.0	60.0	50	43.0
C68	0.2	64.0	72.0	1.8	10.0	65.0	50	47.0
C75	0.2	70.0	79.0	2.0	10.5	70.0	50	51.0

**Notes**

1. Pulse Test: t<sub>p</sub> ≤ 100μs, δ ≤ 0.1%.