



SOLID STATE INC.

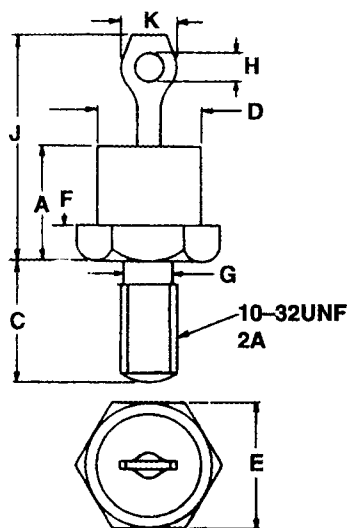
46 FARRAND STREET
BLOOMFIELD, NEW JERSEY 07003

www.solidstateinc.com

BZY93 SERIES

MECHANICAL DATA

Dimensions in mm(inches)



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

VOLTAGE REGULATOR DIODES

FEATURES

The BZY93 series is a range of medium power silicon voltage regulator diodes for general purpose 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.

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
$T_Jmax.$	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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BZY93 SERIES**ELECTRICAL CHARACTERISTICS ($T_{mb} = 25^{\circ}\text{C}$) UNLESS OTHERWISE STATED**

Product	Test I_Z (A)	V_Z^1 @ Test I_Z (V)		R_Z^1 @ Test I_Z (Ω)		S_Z^1 (mV/ $^{\circ}\text{C}$)	I_R At (μA)	V_R (V)
		Min.	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

Notes1. Pulse Test: $t_p \leq 100\mu\text{s}$, $\delta \leq 0.1\%$.