New Jersey Semi-Conductor Products, Inc.

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## STABISTORS

BZX75 SERIES

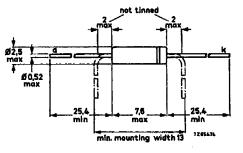
Dimensions in mm

Diodes with controlled conductance in a all-glass DO-7 envelope intended for low voltage  $\cdot$  regulation in circuits for clipping, coupling, clamping, meter protection, bias regulation and in many applications which require tight tolerances and low voltage levels. The series consists of 4 types with nominal voltages ranging from 1,4 to 3,6V with a tolerance of  $\pm 5\%$ .

QUICK REFERENCE DATA								
Regulation voltage range	٧F	nom.	1, 4 to 3, 6	v				
Regulation voltage tolerance			±5	%				
Continuous reverse voltage	VR	max.	10	v				
Repetitive peak reverse voltage	VRRM	max.	10	v				
Repetitive peak forward current	IFRM	max.	250	mA				
Total power dissipation up to $T_{amb} = 32$ <sup>O</sup> C	Ptot	max.	400	mW				
Operating junction temperature	тţ	max.	200	°C				

## MECHANICAL DATA

DO-7



Cathode indicated by coloured band

RATINGS Limiting values in accordance with the Absolute Maximum System (IEC134)

Continuous reverse voltage	VR	max.	10	V
Repetitive peak reverse voltage	VRRM	m <b>ax.</b>	10	v
Repetitive peak forward current	IFRM	max.	250	mA
Total power dissipation up to $T_{amb} = 32 \ ^{o}C$	Ptot	max.	400	mW
Storage temperature	T <sub>stg</sub>	-65 to +175		°C
Operating junction temperature	тј	max.	200	٥C
THERMAL RESISTANCE				
From junction to ambient in free air	R <sub>th</sub> j-a	2	0, 42	K/m₩

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.



## **Quality Semi-Conductors**

CHARACTERISTICS		$T_j = 25 \ ^{OC}$ unless otherwise specified						
	Regulation voltage		oltage	Temperature coefficient	Differential resistan			nce
	V <sub>F</sub> (V)			S <sub>F</sub> (mV/K)	$r_{diff}(\Omega); f = 1 \text{ kHz}$			İz
	at IF = 1 mA		nA	at I <sub>F</sub> = 1 mA	at IF = 1 mA		l mA	
BZX75	min.		max.	typ.	typ.			
C1V4	1,16		1, 34	-4	60			
C2V1	•		2,05	-6	90			
C2V8	2, 33		2, 70	-8	120			
C3V6	3,02		3, 45	-10	150			
	at I <sub>F</sub> = 10 mA		nA	at I <sub>F</sub> = 10 mA	at I <sub>F</sub> = 10 mA			
	min.	nom.	max.	typ.	typ.		ma	x.
C1V4	1,33	1,40	1, 47	-3, 3	6	10		)
	1,99	-	2, 21	-5,0	9	9 15		5
	2,66	-	2,94	-6,6	12	12 20		)
C3V6	3, 42		3, 78	-8,2	15 25		5	
Reverse curre	ent				、			
V <sub>R</sub> = 5 V				BZX75-C1V4 BZX75-C2V1	} I <sub>R</sub>	<	500	nA
				BZX75-C2V8 BZX75-C3V6	} <sup>I</sup> R	<	200	nA
Recovered charg	e when :	switched	from					
1F = 10 mA	to VR =	= 5 V; R	L, = 500	۱Ω	Q <sub>s</sub>	>	600	pC
Diode capacito	ance							
$V_{R} = 0; f =$	1 MHz				Cd	<	250	pF