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STABISTORS

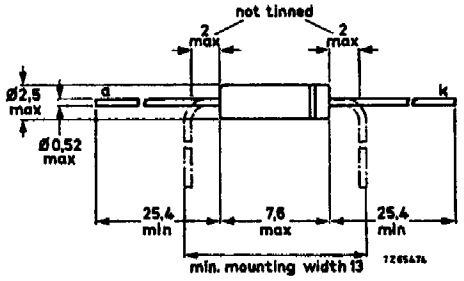
BZX75 SERIES

Diodes with controlled conductance in a all-glass DO-7 envelope intended for low voltage 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 3,6 V with a tolerance of ±5%.

QUICK REFERENCE DATA				
Regulation voltage range	V_F	nom.	1,4 to 3,6	V
Regulation voltage tolerance			±5	%
Continuous reverse voltage	V_R	max.	10	V
Repetitive peak reverse voltage	V_{RRM}	max.	10	V
Repetitive peak forward current	I_{FRM}	max.	250	mA
Total power dissipation up to T_{amb} = 32 °C	P_{tot}	max.	400	mW
Operating junction temperature	T_j	max.	200	°C

MECHANICAL DATA Dimensions in mm

DO-7



Cathode indicated by coloured band

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

Continuous reverse voltage	V_R	max.	10	V
Repetitive peak reverse voltage	V_{RRM}	max.	10	V
Repetitive peak forward current	I_{FRM}	max.	250	mA
Total power dissipation up to T_{amb} = 32 °C	P_{tot}	max.	400	mW
Storage temperature	T_{stg}	−65 to +175		°C
Operating junction temperature	T_j	max.	200	°C

THERMAL RESISTANCE

From junction to ambient in free air	$R_{th\ j\text{-}a}$	=	0,42	K/mW

CHARACTERISTICS

T_j = 25 °C unless otherwise specified

BZX75-....	Regulation voltage V_F (V) at I_F = 1 mA			Temperature coefficient S_F (mV/K) at I_F = 1 mA	Differential resistance r_{diff} (Ω); f = 1 kHz at I_F = 1 mA
	min.		max.	typ.	typ.
C1V4	1,16		1,34	−4	60
C2V1	1,75		2,05	−6	90
C2V8	2,33		2,70	−8	120
C3V6	3,02		3,45	−10	150
	at I_F = 10 mA			at I_F = 10 mA	at I_F = 10 mA
	min.	nom.	max.	typ.	typ. max.
C1V4	1,33	1,40	1,47	−3,3	6 10
C2V1	1,99	2,10	2,21	−5,0	9 15
C2V8	2,66	2,80	2,94	−6,6	12 20
C3V6	3,42	3,60	3,78	−8,2	15 25

Reverse current

V_R = 5 V

BZX75-C1V4, BZX75-C2V1: I_R < 500 nA

BZX75-C2V8, BZX75-C3V6: I_R < 200 nA

Recovered charge when switched from

I_F = 10 mA to V_R = 5 V; R_L = 500 Ω: Q_s > 600 pC

Diode capacitance

V_R = 0; f = 1 MHz: C_d < 250 pF