

STABISTORS

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 3,6V with a tolerance of $\pm 5\%$.

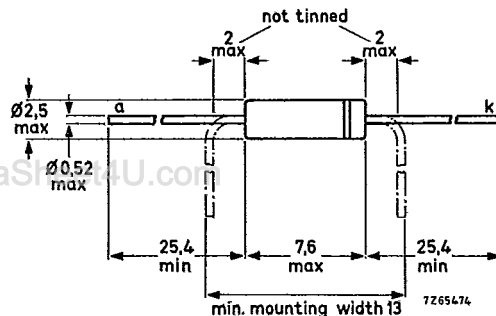
QUICK REFERENCE DATA

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 $T_{amb} = 32\text{ }^\circ\text{C}$	P_{tot}	max.	400	mW
Operating junction temperature	T_j	max.	200	$^\circ\text{C}$

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 $T_{amb} = 32\text{ }^{\circ}\text{C}$	P_{tot}	max.	400	mW
Storage temperature	T_{stg}		-65 to +175	$^{\circ}\text{C}$
Operating junction temperature	T_j	max.	200	$^{\circ}\text{C}$
THERMAL RESISTANCE				
From junction to ambient in free air	$R_{th\ j-a}$	=	0,42	K/mW

CHARACTERISTICS

$T_j = 25\text{ }^\circ\text{C}$ unless otherwise specified

BZX75-....	Regulation voltage			Temperature coefficient	Differential resistance	
	V_F (V)			S_F (mV/K)	r_{diff} (Ω); $f = 1\text{ kHz}$	
	at $I_F = 1\text{ mA}$			at $I_F = 1\text{ mA}$	at $I_F = 1\text{ mA}$	
	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 $I_F = 10\text{ mA}$			at $I_F = 10\text{ mA}$	at $I_F = 10\text{ mA}$	
	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

$$V_R = 5\text{ V}$$

$$\left. \begin{array}{l} \text{BZX75-C1V4} \\ \text{BZX75-C2V1} \end{array} \right\} I_R < 500\text{ nA}$$

$$\left. \begin{array}{l} \text{BZX75-C2V8} \\ \text{BZX75-C3V6} \end{array} \right\} I_R < 200\text{ nA}$$

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Recovered charge when switched from

$$I_F = 10\text{ mA to } V_R = 5\text{ V; } R_L = 500\text{ }\Omega$$

$$Q_s > 600\text{ pC}$$

Diode capacitance

$$V_R = 0; f = 1\text{ MHz}$$

$$C_d < 250\text{ pF}$$

