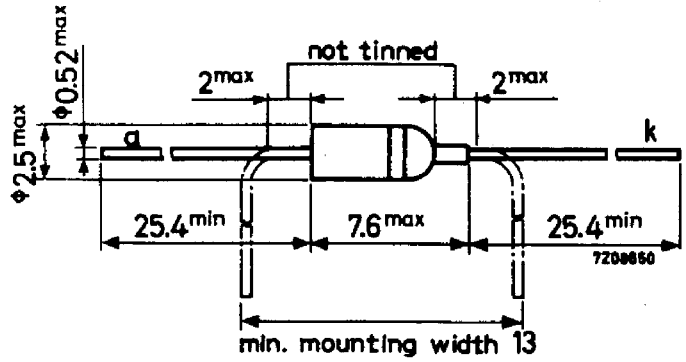
POINT CONTACT DIODE

Germanium point contact diode in a subminiature all glass DO-7 envelope primarily intended for use in a.m. detector and ratio detector circuits.

QUICK REFERENCE DATA				
Continuous reverse voltage	V_R	max.	30	V
Repetitive peak reverse voltage	V_{RRM}	max.	45	V
Forward current (d.c.)	I_F	max.	35	mA
Repetitive peak forward current	I_{FRM}	max.	100	mA
Operating ambient temperature	T_{amb}	max.	60	°C
Forward voltage at I_F = 10 mA	V_F	<	2.2	V

MECHANICAL DATA Dimensions in mm

DO-7



The white band indicates the cathode side

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RATINGS (Limiting values) [1])

Voltages

Continuous reverse voltage	V_R	max.	30	V
Repetitive peak reverse voltage	V_{RRM}	max.	45	V

Currents

Forward current (d.c.)	I_F	max.	35	mA
Average rectified forward current (averaged over any 50 ms period)	I_{FAV}	max.	35	mA
Repetitive peak forward current	I_{FRM}	max.	100	mA
Non repetitive peak forward current ($t < 1$ s)	I_{FSM}	max.	200	mA

Temperatures

Storage temperature	T_{stg}	−55 to +75		°C
Operating ambient temperature	T_{amb}	max.	60	°C

THERMAL RESISTANCE

From junction to ambient in free air	$R_{th\ j\text{-}a}$	=	0.45	°C/mW

1) Limiting values according to the Absolute Maximum System as defined in IEC publication 134.

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CHARACTERISTICS

Forward voltage at T_{amb} = 25 °C				
I_F = 0.1 mA	V_F	typ.	0.23	V
		<	0.30	V
I_F = 1 mA	V_F	typ.	0.56	V
		<	0.88	V
I_F = 10 mA	V_F	typ.	1.5	V
		<	2.2	V
I_F = 30 mA [1]	V_F	typ.	2.8	V
		<	4.0	V
Forward voltage at T_{amb} = 60 °C				
I_F = 0.1 mA	V_F	typ.	0.16	V
		<	0.25	V
I_F = 1 mA	V_F	typ.	0.50	V
		<	0.80	V
I_F = 10 mA	V_F	typ.	1.4	V
		<	2.1	V
I_F = 30 mA [1]	V_F	typ.	2.6	V
		<	3.8	V
Reverse current at T_{amb} = 25 °C				
V_R = 0.1 V	I_R	typ.	0.35	µA
		<	1.0	µA
V_R = 1.5 V	I_R	typ.	0.8	µA
		<	2.8	µA
V_R = 10 v	I_R	typ.	4.5	µA
		<	18	µA
V_R = 30 V	I_R	typ.	35	µA
		<	150	µA
V_R = 45 V	I_R	typ.	90	µA
		<	350	µA
Reverse current at T_{amb} = 60 °C				
V_R = 0.1 V	I_R	typ.	4.5	µA
		<	12	µA
V_R = 1.5 V	I_R	typ.	6	µA
		<	25	µA
V_R = 10 V	I_R	typ.	16	µA
		<	60	µA
V_R = 30 V	I_R	typ.	60	µA
		<	300	µA
V_R = 45 V	I_R	typ.	170	µA
		<	500	µA

[1]) Measured under pulsed conditions to prevent excessive dissipation.

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