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Damper diode

BY428

FEATURES

- Glass passivated
- High maximum operating temperature
- Low leakage current
- Excellent stability
- Available in ammo-pack
- Also available with preformed leads for easy insertion.

APPLICATIONS

- Damper diode in high frequency horizontal deflection circuits up to 64 kHz.

DESCRIPTION

Rugged glass package, using a high temperature alloyed construction.

This package is hermetically sealed and fatigue free as coefficients of expansion of all used parts are matched.

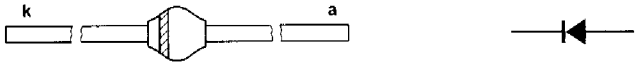

Fig.1 Simplified outline (SOD64) and symbol.

LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{RSM}	non-repetitive peak reverse voltage		–	1500	V
V_{RRM}	repetitive peak reverse voltage		–	1500	V
V_R	continuous reverse voltage		–	1400	V
I_{FWM}	working peak forward current	T_{tp} = 80 °C; lead length = 10 mm; see Fig.2	–	4	A
I_{FRM}	repetitive peak forward current		–	8	A
I_{FSM}	non-repetitive peak forward current	t = 10 ms half sinewave; $T_j = T_{j\,max}$ prior to surge; $V_R = V_{RRMmax}$	–	50	A
T_{stg}	storage temperature		–65	+175	°C
T_j	junction temperature		–65	+150	°C

ELECTRICAL CHARACTERISTICS

T_j = 25 °C; unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
V_F	forward voltage	I_F = 4 A; $T_j = T_{j\,max}$; see Fig.3	1.60	V
		I_F = 4 A; see Fig.3	1.95	V
I_R	reverse current	$V_R = V_{Rmax}$; T_j = 150 °C	150	µA
t_{rr}	reverse recovery time	when switched from I_F = 0.5 A to I_R = 1 A; measured at I_R = 0.25 A; see Fig.6	250	ns
t_{fr}	forward recovery time	when switched to I_F = 5 A in 50 ns; $T_j = T_{j\,max}$; see Fig.7	250	ns

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j\text{-}tp}$	thermal resistance from junction to tie-point	lead length = 10 mm	25	K/W
$R_{th\ j\text{-}a}$	thermal resistance from junction to ambient	note 1	75	K/W
		mounted as shown in Fig.5	40	K/W