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PHILIPS INTERNATIONAL

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RATINGS

Limiting values in accordance with the Absolute Maximum System (IEC 134)

		BY712	713	714
Working reverse voltage	V_{RW} max.	18	20	24 kV
Repetitive peak reverse voltage	V_{RRM} max.	22	24	30 kV
Non-repetitive peak reverse voltage $t < 10$ ms	V_{RSM} max.	22	24	30 kV
Average forward current (averaged over any 20 ms period)	$I_F(AV)$ max.	3		mA
Repetitive peak forward current*	I_{FRM} max.	500		mA
Storage temperature	T_{stg}	-65 to +120		°C
Junction temperature	T_j max.	120		°C

CHARACTERISTICS

Forward voltage** $I_F = 50$ mA; $T_j = 120$ °C	V_F	<	76	V
Reverse current $V_R = V_{RW}$; $T_j = 120$ °C	I_R	<	3	μA
Reverse recovery when switched from $I_F = 100$ mA to $V_R \geq 100$ V with $-dI_F/dt = 200$ mA/μs; $T_j = 25$ °C	Q_s	~	1	nC
recovery charge	t_{rr}	typ.	0,2	μs
recovery time	t_f	>	0,1	μs
fall time				

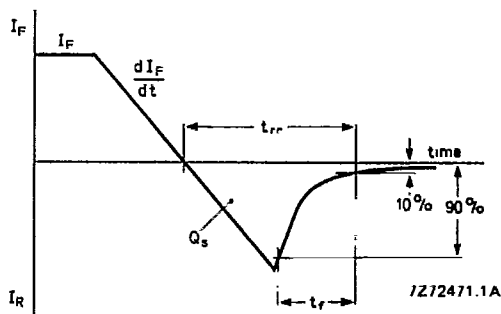


Fig. 2 Definitions of Q_s , t_{rr} and t_f .

* The device can withstand peak currents occurring during flashover in a picture tube.

** Measured under pulse conditions to avoid excessive dissipation.

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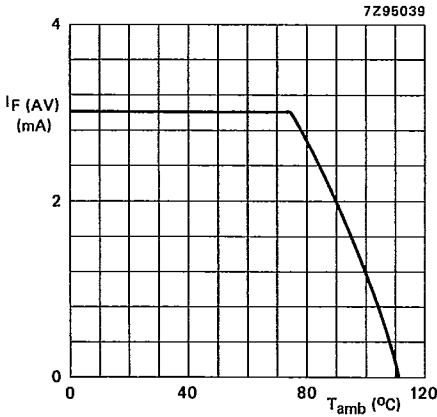


Fig. 3 Maximum permissible average forward current as a function of ambient temperature. $V_R = V_{RWmax}$. The diode should be mounted in such a way that $R_{thj-a} \leq 120$ K/W.

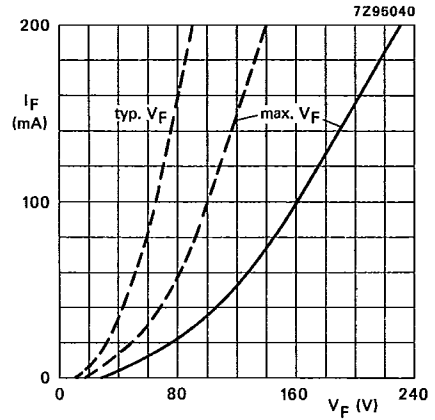


Fig. 4 ——— $T_j = 25$ °C; - - - - $T_j = 120$ °C.

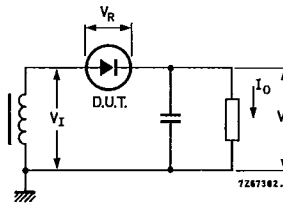


Fig. 5 Typical operation circuit.

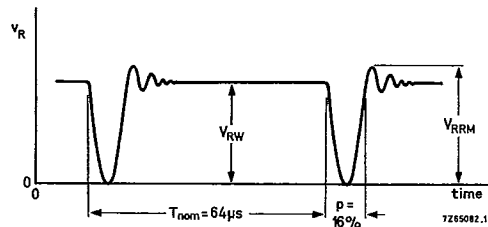


Fig. 6 Typical applied voltage.