Silicon Diode

BA173

300V / 300mA

DATASHEET

OEM – Telefunken

Source: Telefunken Databook 1977

Datasheet Rev. 1.3 – 12/18 – data without warranty / liability

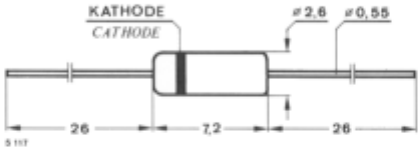
BA 173

Silizium-Diffusions-Diode
Silicon diffusion diode

Anwendungen: Klemmschaltungen in Farb-FS-Geräten mit hohen Betriebsspannungen

Applications: *Clamping circuits in colour TV-receivers, with high supply voltage*

Abmessungen in mm
Dimensions in mm



Normgehäuse
Case
51 A 2 DIN 41 880
JEDEC DO 7
Gewicht · *Weight*
max. 0,2 g

Absolute Grenzdaten
Absolute maximum ratings

Periodische Spitzensperrspannung *Repetitive peak reverse voltage* $\frac{t_p}{T} = 0{,}01$, $t_p \leq 0{,}1$ ms	U_{RRM}	350	V
Sperrspannung *Reverse voltage*	U_R	300	V
Periodischer Durchlaßspitzenstrom *Repetitive peak forward current* $\frac{t_p}{T} = 0{,}01$, $t_p \leq 10$ ms	I_{FRM}	3	A
Durchlaßstrom *Forward current*	I_F	300	mA
Sperrschichttemperatur *Junction temperature*	t_j	150	°C
Lagerungstemperaturbereich *Storage temperature range*	t_{stg}	−65...+150	°C

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		Min.	Typ.	Max.	
Wärmewiderstand ***Thermal resistance***					
Sperrschicht-Umgebung *Junction ambient* l = 4 mm, t_L = konstant *constant*	R_{thJA}			450	°C/W
Kenngrößen ***Characteristics***					
t_j = 25 °C					
Durchlaßspannung *Forward voltage* I_F = 100 mA	U_F			1	V
Sperrstrom *Reverse current* U_R = 300 V	I_R		0,08	1	µA
Diodenkapazität *Diode capacitance* f = 1 MHz, U_R = 30 V	C_D			3,4	pF
U_R = 150 V	C_D			2	pF
Rückwärtserholzeit *Reverse recovery time* I_F = I_R = 10 mA, i_R = 1 mA	t_{rr}		350	500	ns

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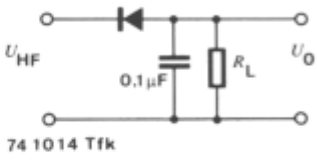
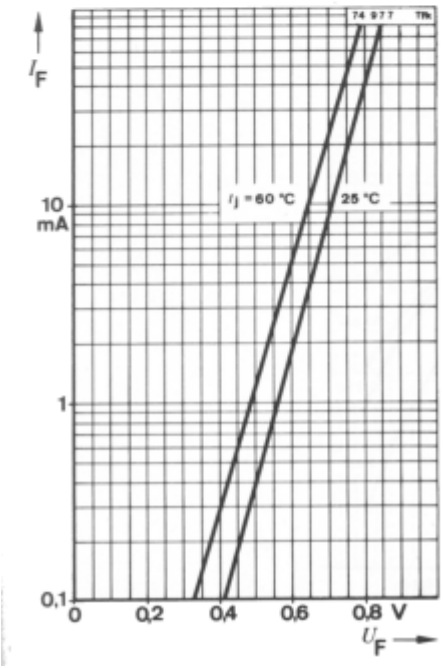


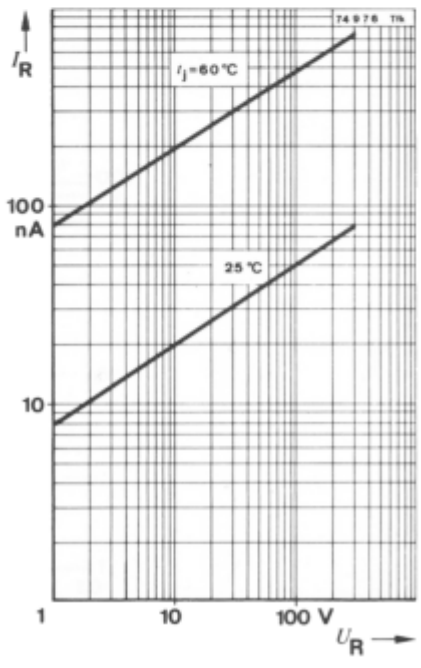
R_L = 2kΩ bzw. 33kΩ

$\eta_r = \frac{U_0 \times 100\ \%}{U_{HF}}$

Meßschaltung für: η_r

Test circuit for: η_r





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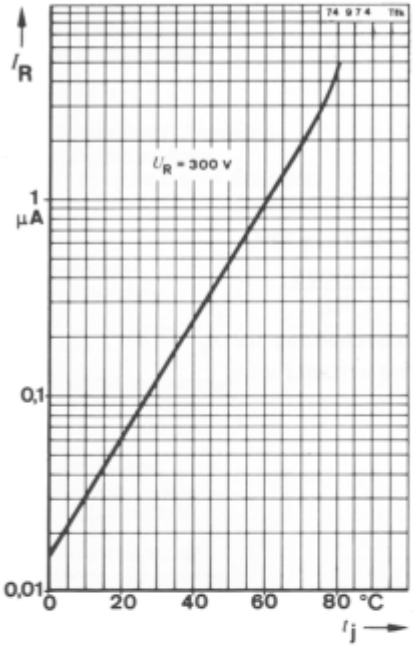
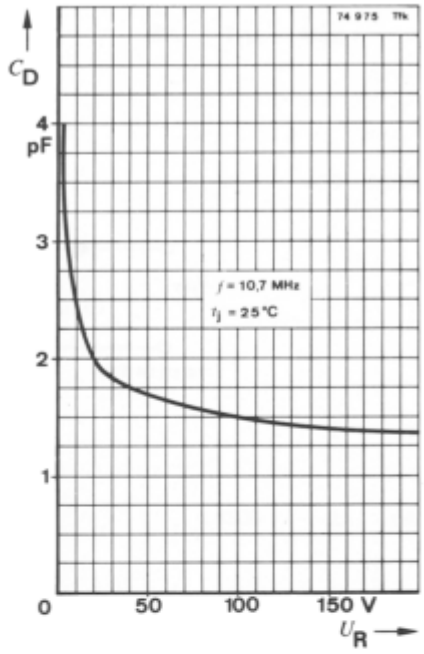
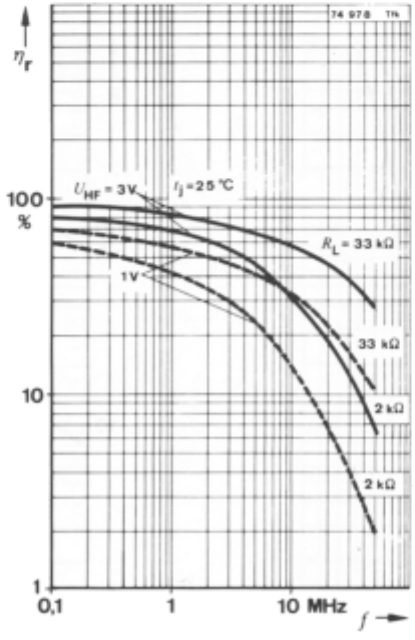

74 974 TFk
I_R
U_R = 300 V
1 µA
0,1
0,01
0 20 40 60 80 °C
t_j


74 975 TFk
C_D
4 pF
3
2
1
0
f = 10,7 MHz
t_j = 25 °C
50 100 150 V
U_R


74 978 TFk
η_r
100 %
10
1
U_{HF} = 3 V
t_j = 25 °C
R_L = 33 kΩ
1 V
33 kΩ
2 kΩ
2 kΩ
0,1 1 10 MHz
f

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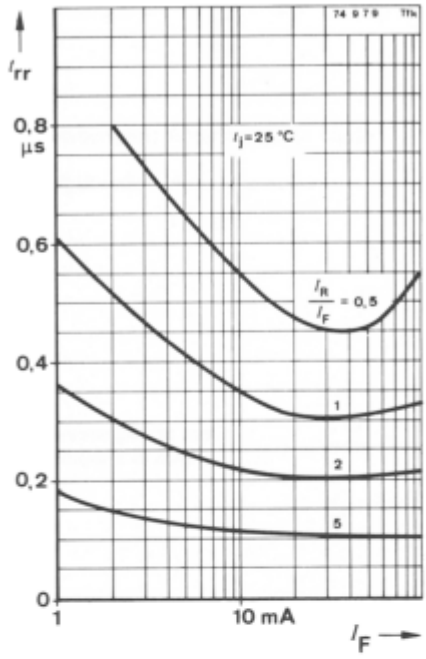
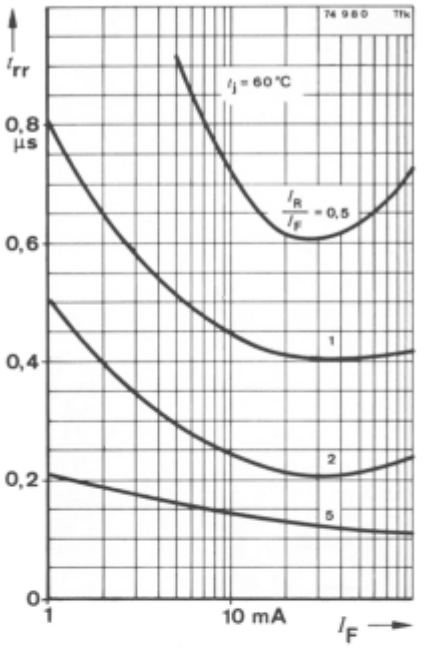

74 979 TFk
t_{rr}
0,8 µs
0,6
0,4
0,2
0
t_j=25 °C
$\frac{I_R}{I_F}$ = 0,5
1
2
5
1
10 mA
I_F


74 980 TFk
t_{rr}
0,8 µs
0,6
0,4
0,2
0
t_j = 60 °C
$\frac{I_R}{I_F}$ = 0,5
1
2
5
1
10 mA
I_F