

# Germanium Diode

## **AA137**

30V / 20mA

# DATASHEET

OEM – Telefunken

Source: Telefunken Databook 1977

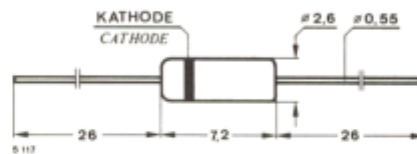
**AA 137**

**Germanium-Spitzendiode**  
**Germanium point contact diode**

**Anwendungen:** Regelspannungserzeugung in FS-Geräten

**Applications:** AGC rectifier in TV receivers

**Abmessungen in mm**  
**Dimensions in mm**



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

Absolute Grenzwerte Absolute maximum ratings	$t_{amb}$	25 °C	60 °C	
Stoßsperrspannung Surge reverse voltage	$U_{RSM}$	50	50	V
Periodische Spitzensperrspannung Repetitive peak reverse voltage	$U_{RRM}$	40	40	V
Sperrspannung Reverse voltage	$U_R$	30	30	V
Stoßdurchlaßstrom Surge forward current	$I_{FSM}$	50	50	mA
Periodischer Durchlaßspitzenstrom Repetitive peak forward current	$I_{FRM}$	25	25	mA
Durchlaßstrom Forward current	$I_F$	20	15	mA
Durchlaßstrom, Mittelwert Average forward current $u_m = U_{RRM}$	$I_{FAV}$	12	5	mA
Sperrschichttemperatur Junction temperature	$t_j$	100		°C
Lagerungstemperaturbereich Storage temperature range	$t_{stg}$	-55...+100		°C

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## Wärmewiderstand Thermal resistance

Min. Typ. Max.

Sperrschicht-Umgebung

Junction ambient

$l = 4 \text{ mm}$ ,  $t_L = \text{konstant}$   
constant

$R_{thJA}$

500 °C/W

## Kenngrößen Characteristics

$t_j = 25^\circ\text{C}$

Durchlaßspannung  
Forward voltage

$I_F = 0,1 \text{ mA}$

$I_F = 10 \text{ mA}$

$I_F = 20 \text{ mA}$

$U_F$

$U_F$

$U_F^{1)}$

0,18

0,9

1,37

V

V

V

Sperrstrom

Reverse current

$U_R = 3 \text{ V}$

$U_R = 10 \text{ V}$

$U_R = 30 \text{ V}$

$U_R = 40 \text{ V}$

$I_R$

$I_R$

$I_R$

$I_R$

3,5

13

100

220

$\mu\text{A}$

50

$\mu\text{A}$

$\mu\text{A}$

Dämpfungswiderstand

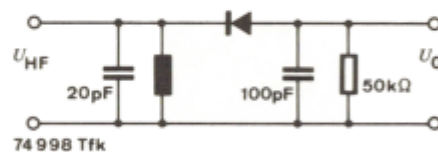
Damping resistance

$U_{HF} = 1 \text{ V}$ ,  $f = 39 \text{ MHz}$ ,  $U_O \geq 1 \text{ V}$

$r_p^{2)}$

12

k $\Omega$

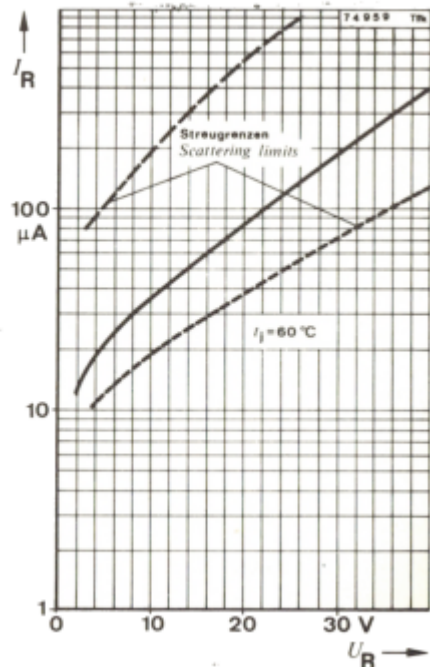
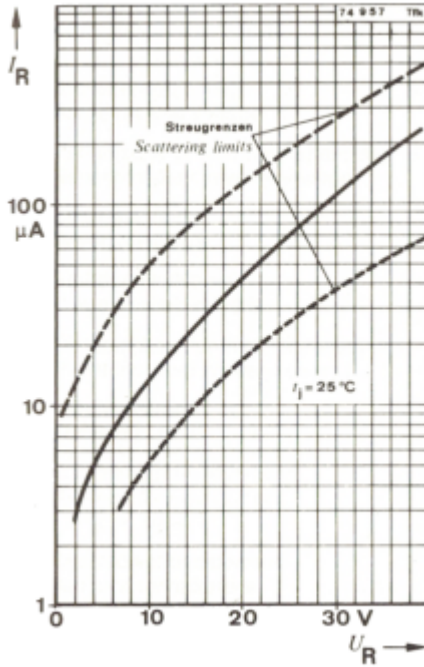
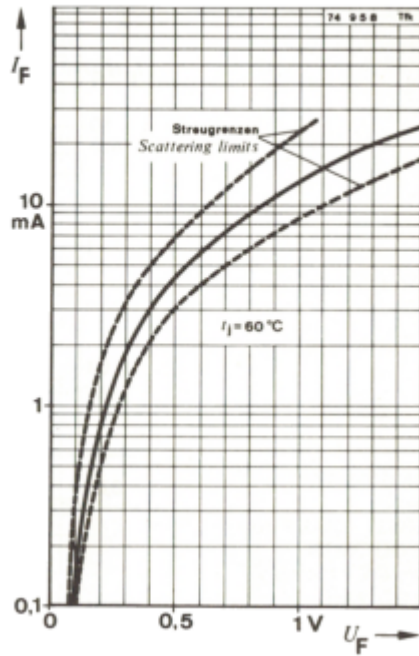
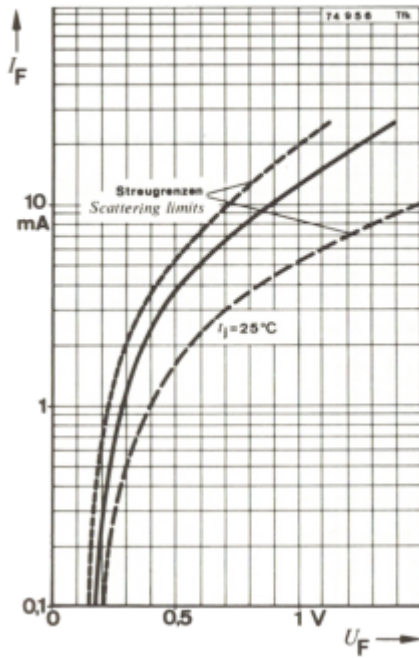


Meßschaltung für:  $r_p$   
Test circuit for:  $r_p$

<sup>1)</sup>  $\frac{t_p}{T} = 0,01$ ,  $t_p = 0,3 \text{ ms}$

<sup>2)</sup> siehe Meßschaltung  
see test circuit

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