

Germanium Diode

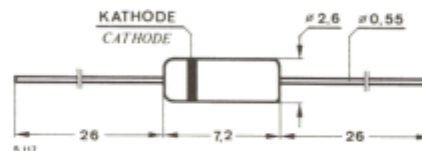
AA138

15V / 20mA

DATASHEET

OEM – Telefunken

Source: Telefunken Databook 1977

AA 138**Germanium-Spitzendiode**
Germanium point contact diode**Anwendungen:** Demodulatorschaltungen in FS-Geräten**Applications:** Demodulator circuits 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 Grenzdaten Absolute maximum ratings	t_{amb}	25 °C	60 °C	
Stoßsperrspannung Surge reverse voltage	U_{RSM}	30	30	V
Periodische Spitzensperrspannung Repetitive peak reverse voltage	U_{RRM}	25	25	V
Sperrspannung Reverse voltage	U_R	15	15	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 $I_m = U_{RRM}$	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

Kenngößen
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	0,18		V
U_F	0,9	1,5	V
$U_F^{1)}$	1,37		V

Sperrstrom
Reverse current

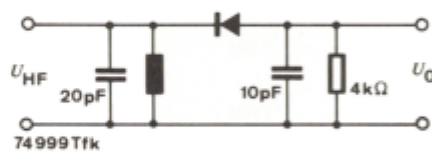
$U_R = 1,5 \text{ V}$
 $U_R = 10 \text{ V}$
 $U_R = 15 \text{ V}$
 $U_R = 25 \text{ V}$

I_R	2,5		μA
I_R	18	50	μA
I_R	35		μA
I_R	120		μA

Dämpfungswiderstand
Damping resistance

$U_{HF} = 1 \text{ V}, f = 39 \text{ MHz}, U_O \geq 0,65 \text{ V}$

$r_p^{2)}$ 3,8 k Ω

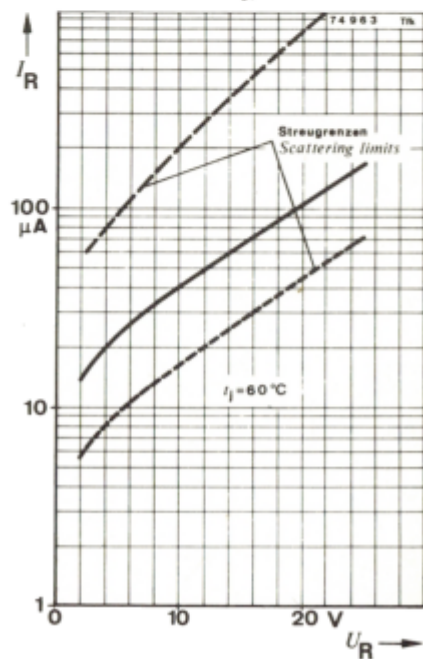
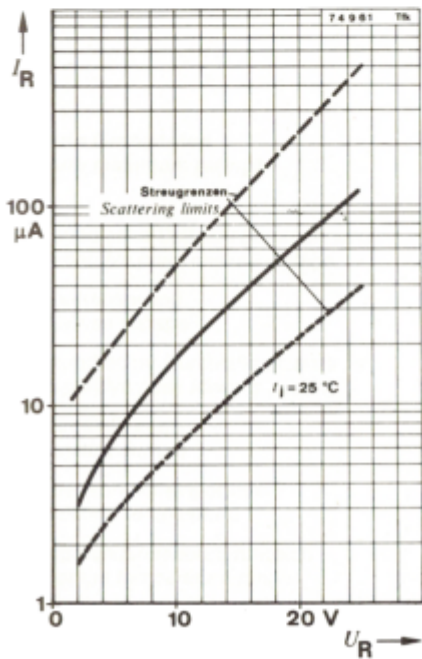
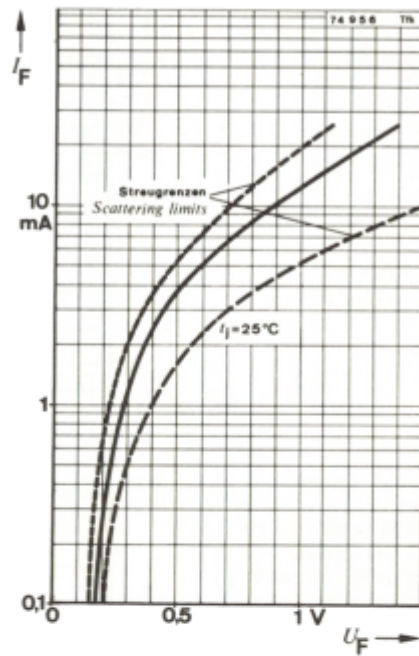
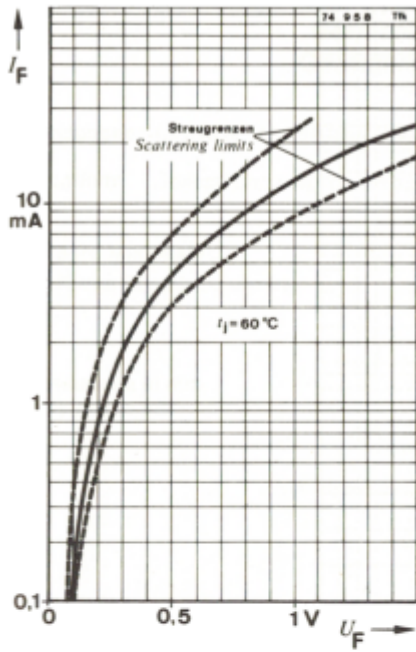


Meßschaltung für: r_p
Test circuit for: r_p

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

²⁾ siehe Meßschaltung
see test circuit

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