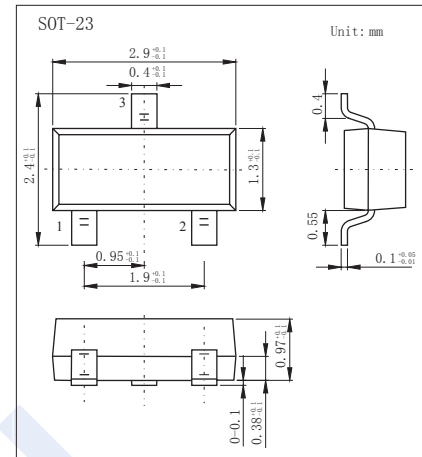
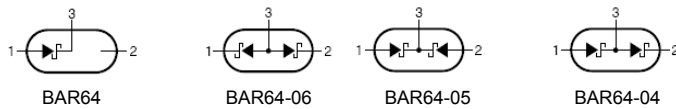


PIN Diodes

BAR64-04/05/06 (KAR64-04/05/06)

■ Features

- High voltage current controlled
- RF resistor for RF attenuator and switches
- Frequency range above 1 MHz
- Low resistance and short carrier lifetime
- For frequencies up to 3 GHz

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|--|---|------------|---------------------------|
| Peak Reverse Voltage | V_R | 200 | V |
| Forward Current | I_F | 100 | mA |
| Power Dissipation | BAR64 @ $T_s \leq 90^\circ\text{C}$ BAR64-04/05/06 @ $T_s \leq 65^\circ\text{C}$ | 250 | mW |
| Thermal Resistance Junction to Ambient | BAR64 BAR64-04/05/06 | 320 500 | $^\circ\text{C}/\text{W}$ |
| Thermal Resistance Junction to Soldering Point | BAR64 BAR64-04/05/06 | 240 340 | |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Operating Temperature Range | T_{op} | -55 to 150 | |
| Storage Temperature range | T_{stg} | -55 to 150 | |

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------------|----------|--|-----|------|------|---------------|
| Reverse breakdown voltage | V_R | $I_R = 100\mu\text{A}$ | 200 | | | V |
| Forward voltage | V_F | $I_F = 50\text{ mA}$ | | | 1.1 | |
| Reverse voltage leakage current | I_{R1} | $V_R = 200\text{ V}$ | | | 10 | μA |
| | I_{R2} | $V_R = 40\text{ V}$ | | | 1 | |
| Forward resistance | r_f | $I_F = 1\text{ mA}, f = 100\text{ MHz}$ | | | 20 | Ω |
| | | $I_F = 10\text{ mA}, f = 100\text{ MHz}$ | | | 3.8 | |
| | | $I_F = 100\text{ mA}, f = 100\text{ MHz}$ | | | 1.35 | |
| Series inductance | L_S | $I_F = 10\text{ mA}, f = 100\text{ MHz}$ | | 1.4 | | nH |
| Capacitance between terminals | C_T | $V_R = 20\text{ V}, f = 1\text{ MHz}$ | | | 0.35 | pF |
| Reverse recovery time | t_{rr} | $I_F = 10\text{ mA}, I_R = 6\text{ mA}, I_R = 3\text{ mA}$ | | 1.55 | | μs |

PIN Diodes

BAR64-04/05/06 (KAR64-04/05/06)

■ Marking

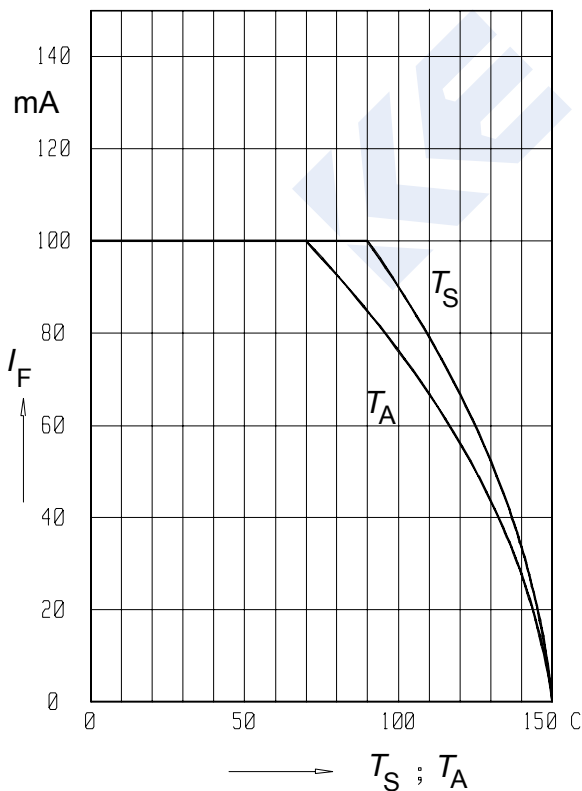
| | | | | |
|---------|-------|----------|----------|----------|
| NO | BAR64 | BAR64-04 | BAR64-05 | BAR64-06 |
| Marking | PO | PP | PR | PS |

■ Typical Characteristics

Forward current $I_F = f(T_S; T_A^*)$

* mounted on alumina

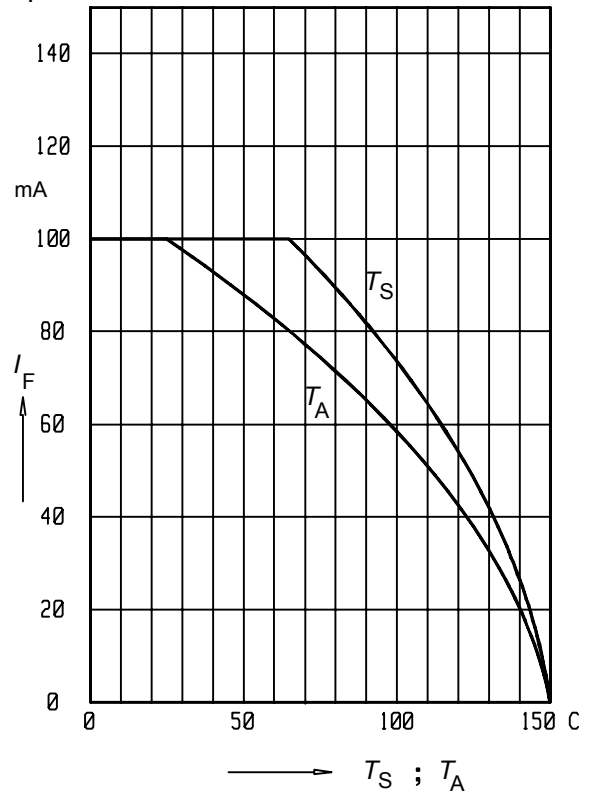
BAR64



Forward current $I_F = f(T_S; T_A^*)$

per each diode

BAR64-05,-05,-06

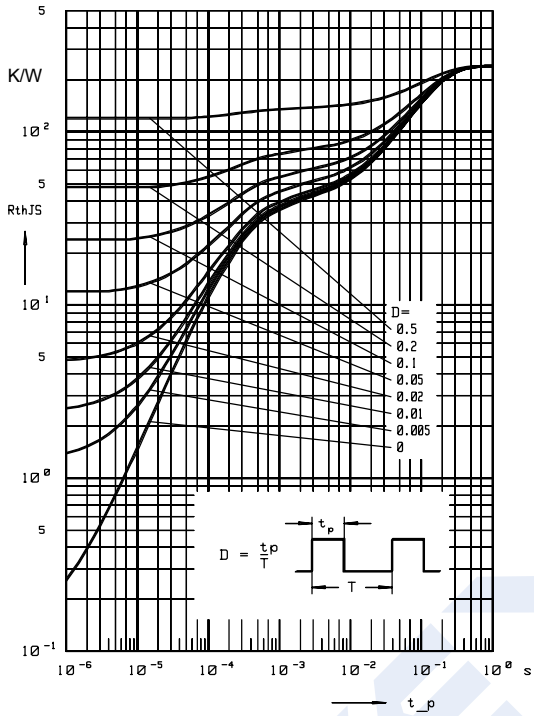


PIN Diodes

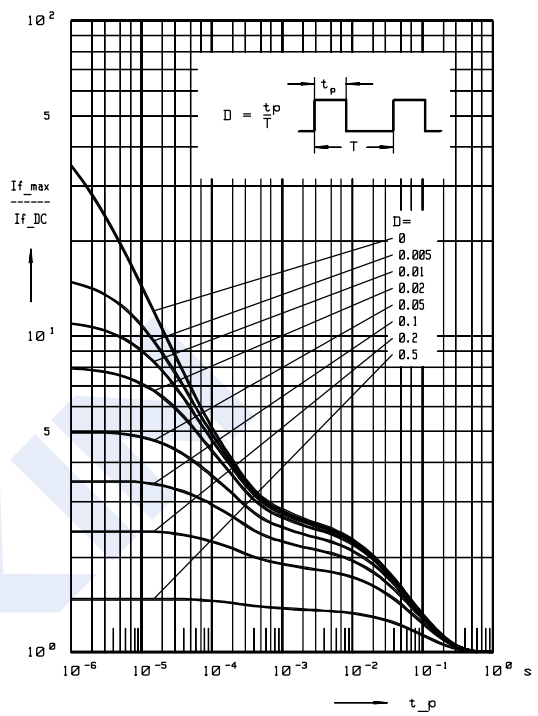
BAR64-04/05/06 (KAR64-04/05/06)

■ Typical Characteristics

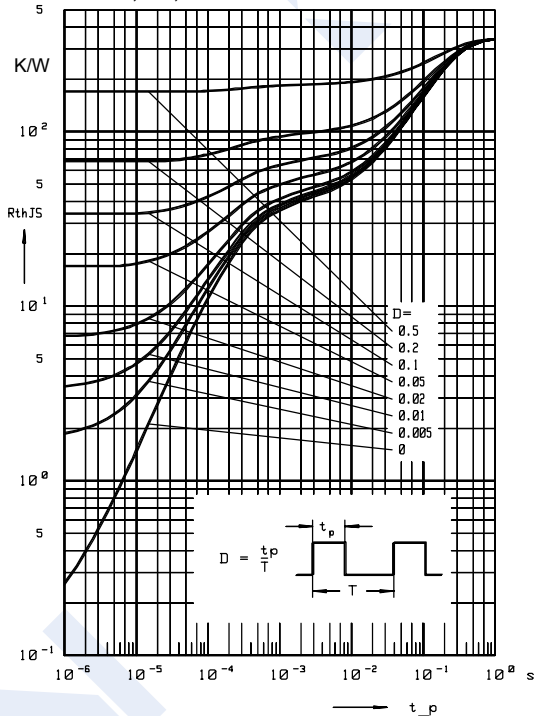
Permissible pulse load $R_{thJS} = f(t_p)$
BAR64



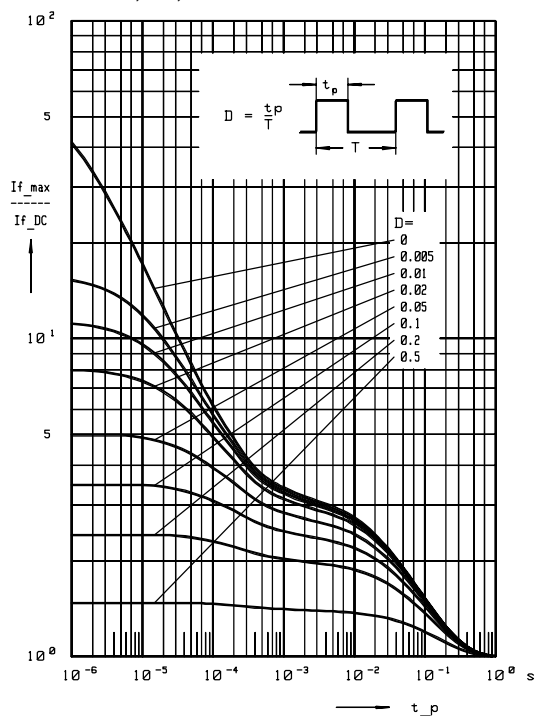
Permissible pulse load $I_{fmax}/I_{fDC} = f(t_p)$
BAR64



Permissible pulse load $R_{thJS} = f(t_p)$
BAR64-04,-05,-06



Permissible pulse load $I_{Fmax}/I_{FDC} = f(t_p)$
BAR64-04,-05,-06

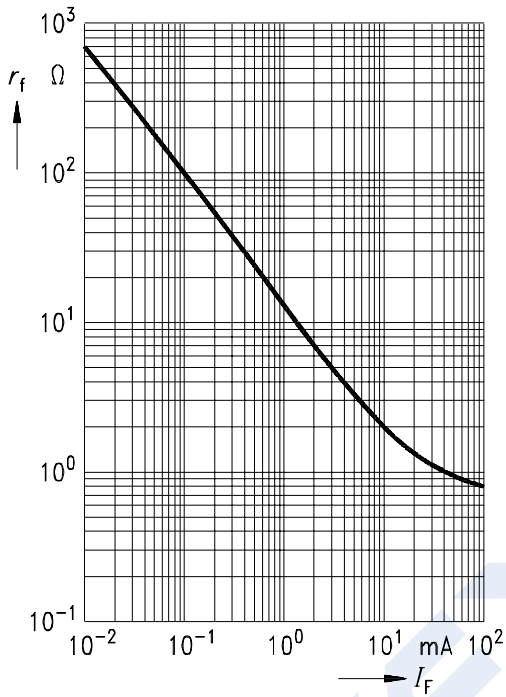


PIN Diodes

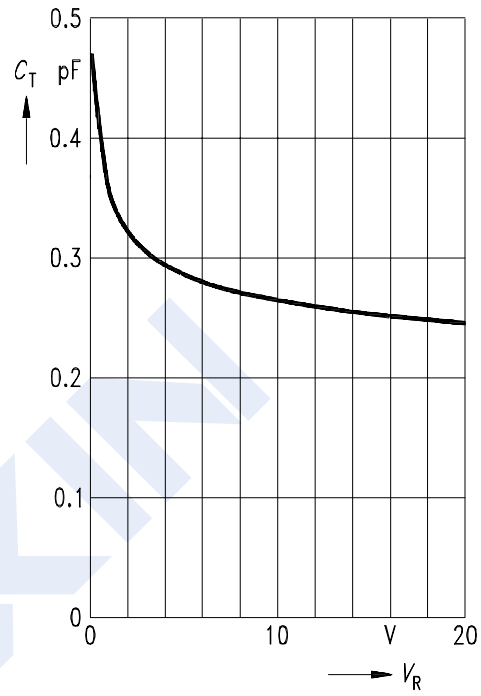
BAR64-04/05/06 (KAR64-04/05/06)

■ Typical Characteristics

Forward resistance $r_f = f(I_F)$
 $f = 100 \text{ MHz}$



Diode capacitance $C_T = f(V_R)$
 $f = 1 \text{ MHz}$



Forward current $I_F = f(V_F)$

