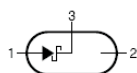


PIN Diodes

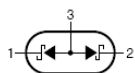
BAR64-04/05/06 (KAR64-04/05/06)

■ Features

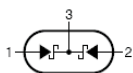
- High voltage current controlled
- RF resistor for RF attenuator and switches
- Frequency range above 1 MHz
- Low resistance and short carrier lifetime
- For frequencies up to 3 GHz



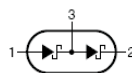
BAR64



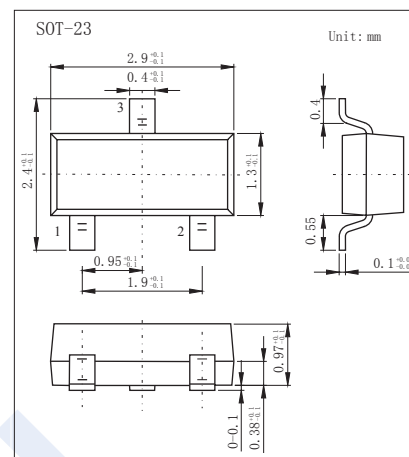
BAR64-06



BAR64-05



BAR64-04

■ 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 @ $T_s \leq 65^\circ\text{C}$	P_D	250	mW
Thermal Resistance Junction to Ambient BAR64 BAR64-04/05/06	$R_{\theta JA}$	320 500	$^\circ\text{C}/\text{W}$
Thermal Resistance Junction to Soldering Point BAR64 BAR64-04/05/06	$R_{\theta JS}$	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

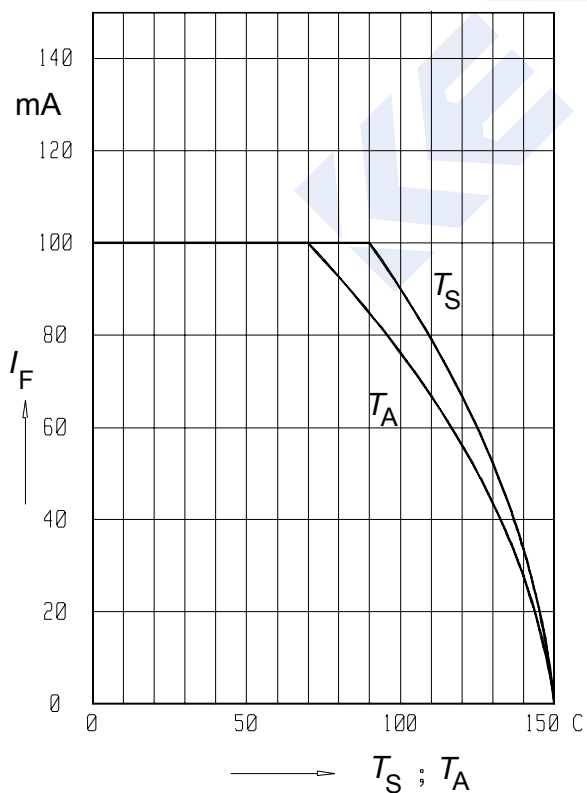
NO	BAR64	BAR64-04	BAR64-05	BAR64-06
Marking	PO	PP	PR	PS

■ Typical Characteristics

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

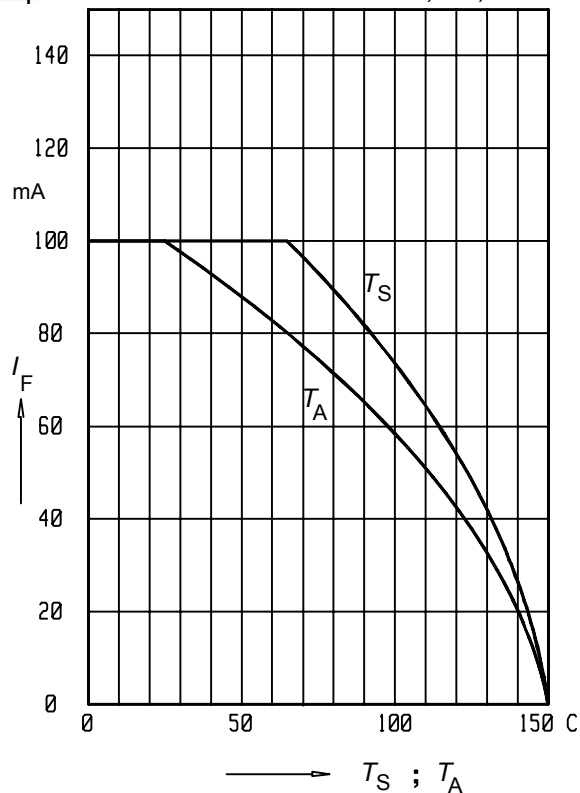
* mounted on alumina

BAR64

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

per each diode

BAR64-05,-05,-06



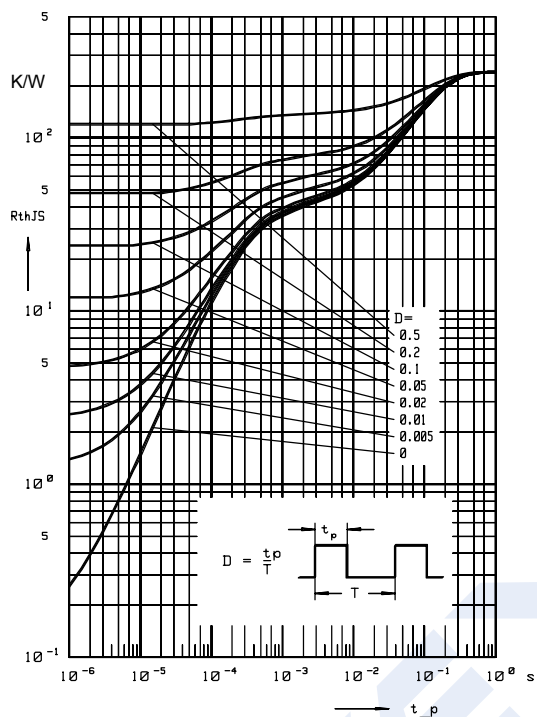
PIN Diodes

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

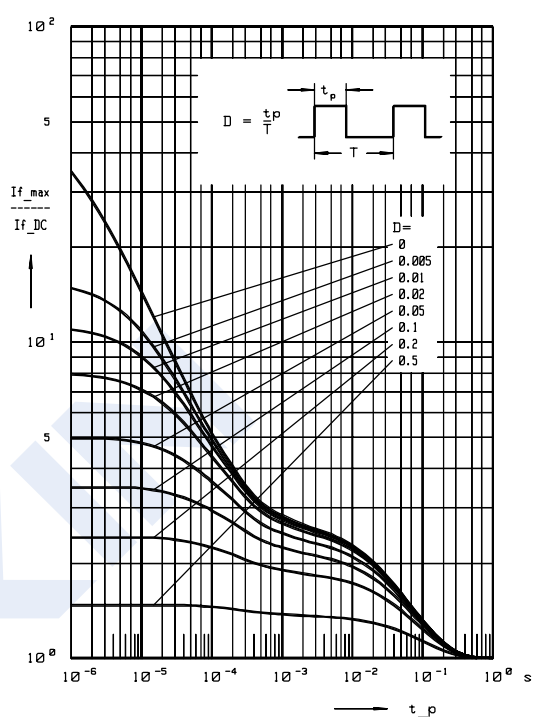
■ Typical Characteristics

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

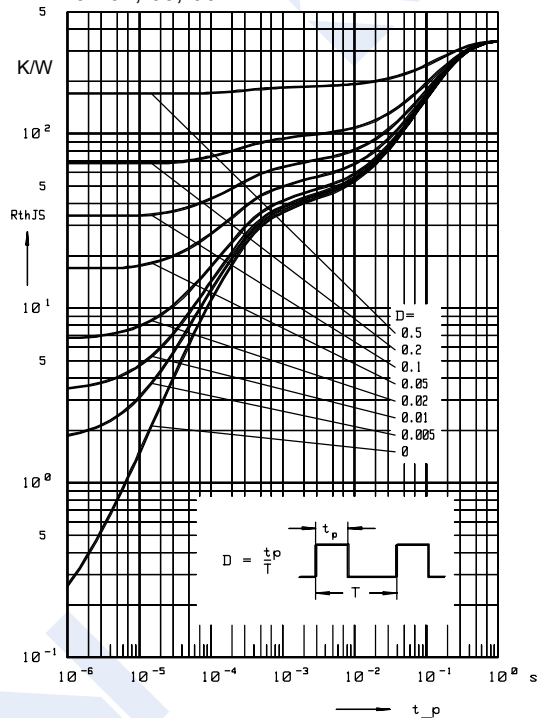
BAR64

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

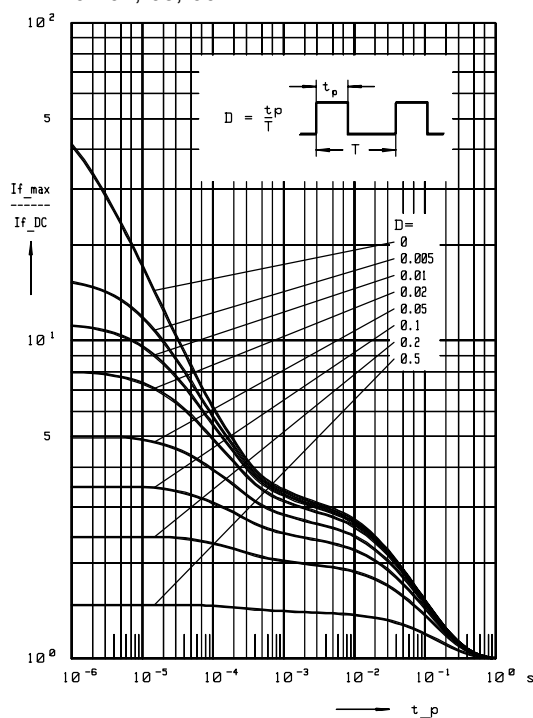
BAR64

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

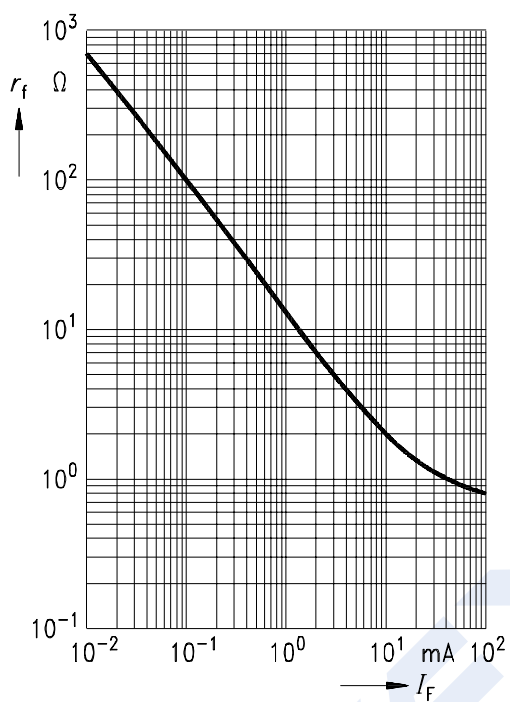


PIN Diodes

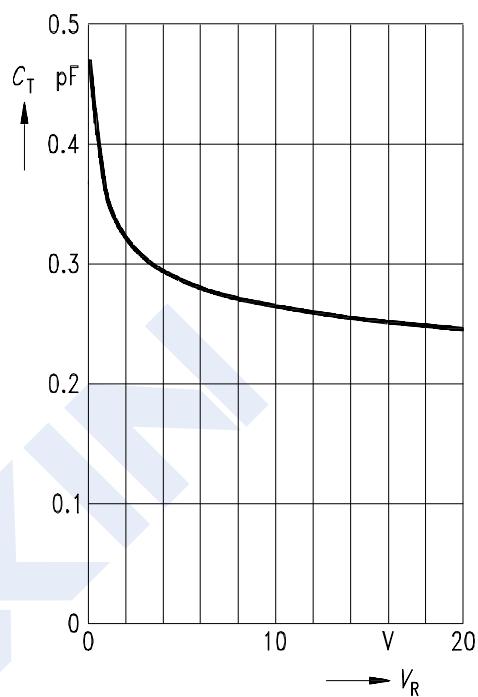
BAR64-04/05/06 (KAR64-04/05/06)

■ 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 $I_F = f(V_F)$

