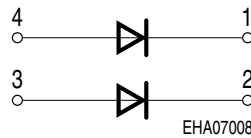
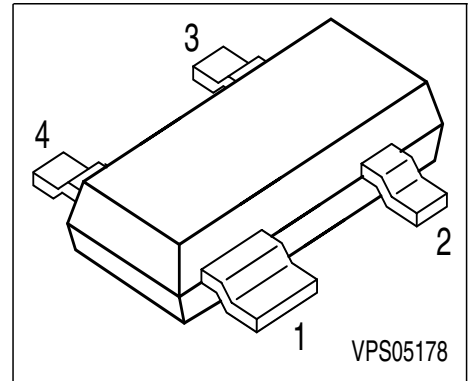


**Silicon PIN Diode Array**

- 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



Type	Marking	Pin Configuration				Package
BAR 64-07	PTs	1 = C1	2 = C2	3 = A2	4 = A1	SOT-143

**Maximum Ratings**

Parameter	Symbol	Value	Unit
Diode reverse voltage	$V_R$	200	V
Forward current	$I_F$	100	mA
Total power dissipation, $T_S \leq 25\text{ }^\circ\text{C}$	$P_{tot}$	250	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Operating temperature range	$T_{op}$	-55 ... 150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ... 150	

**Thermal Resistance**

Junction - ambient <sup>1)</sup>	$R_{thJA}$	$\leq 450$	K/W
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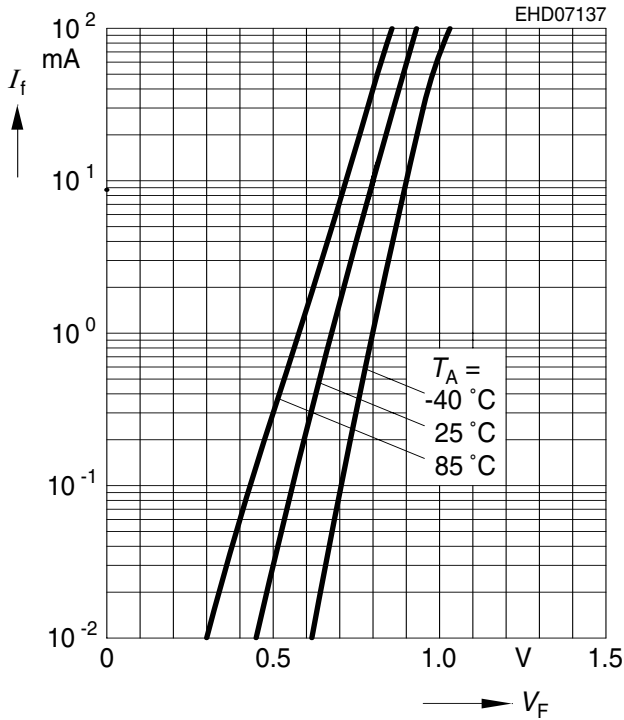
1) Package mounted on alumina 15mm x 16.7mm x 0.7mm

**Electrical Characteristics** at  $T_A = 25^\circ\text{C}$ , unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC characteristics</b>					
Breakdown voltage $I_{(BR)} = 5 \mu\text{A}$	$V_{(BR)}$	200	-	-	V
Forward voltage $I_F = 50 \text{ mA}$	$V_F$	-	-	1.1	
<b>AC characteristics</b>					
Diode capacitance $V_R = 20 \text{ V}, f = 1 \text{ MHz}$	$C_T$	-	0.23	0.35	pF
Forward resistance $I_F = 1 \text{ mA}, f = 100 \text{ MHz}$ $I_F = 10 \text{ mA}, f = 100 \text{ MHz}$ $I_F = 100 \text{ mA}, f = 100 \text{ MHz}$	$r_f$	-	12.5 2.1 0.85	20 3.8 1.35	$\Omega$
Charge carrier life time $I_F = 10 \text{ mA}, I_R = 6 \text{ mA}, I_R = 3 \text{ mA}$	$\tau_{rr}$	-	1.55	-	$\mu\text{s}$
Series inductance	$L_S$	-	2	-	nH

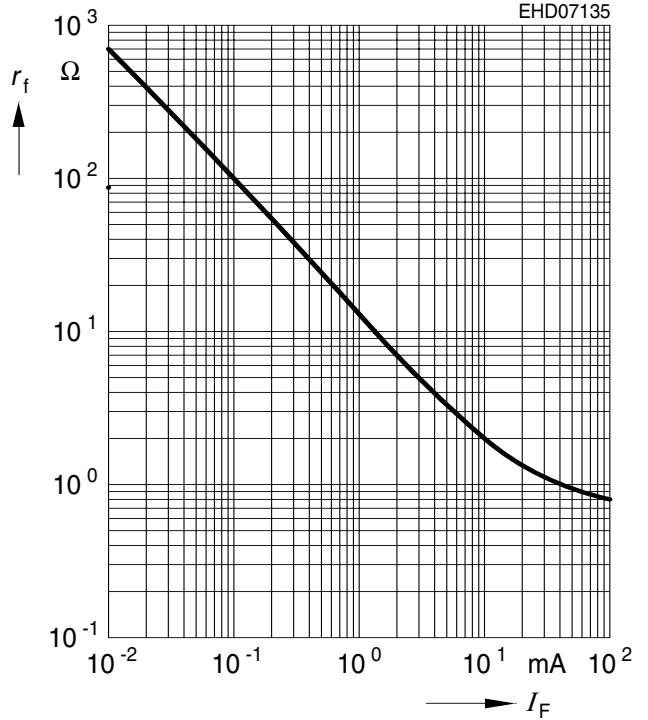
**Forward current  $I_F = f(V_F)$**

$T_A =$  Parameter



**Forward resistance  $r_f = f(I_F)$**

$f = 100\text{MHz}$



**Diode capacitance  $C_T = f(V_R)$**

$f =$  parameter

