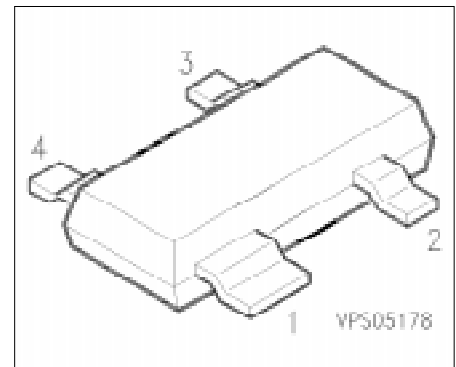


## Silicon Schottky Diode

## BAT 63

- Low barrier diode for mixer and detectors up to GHz frequencies



Type	Ordering Code (tape and reel)	Pin Configuration				Marking	Package
		1	2	3	4		
BAT 63	Q62702-A1004	A1	C2	A2	C1	63	SOT-143

### Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	$V_R$	3	V
Forward current	$I_F$	100	mA
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	– 55 ... + 150	°C

### Thermal Resistance

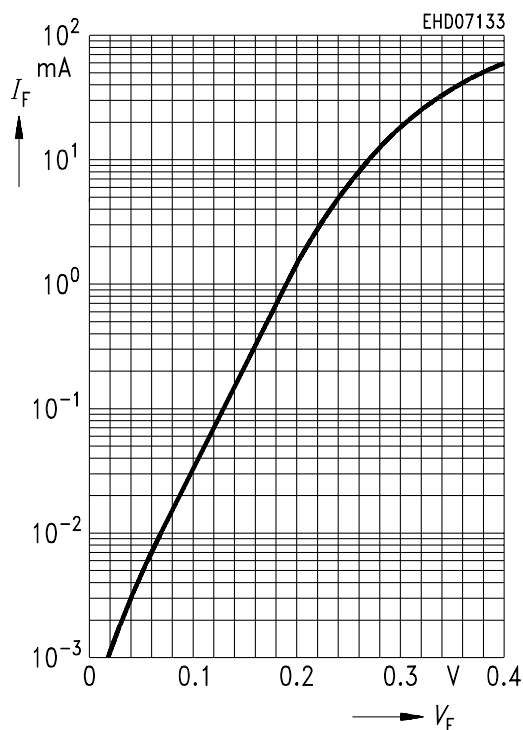
Junction-ambient <sup>1)</sup>	$R_{th JA}$	≤ 450	K/W
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1) Package mounted on aluminum 15 mm x 16.7 mm x 0.7 mm.

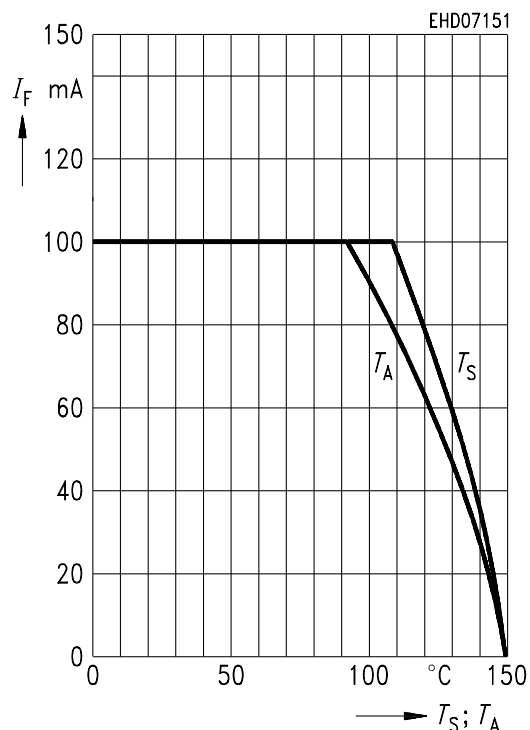
**Electrical Characteristics**at  $T_A = 25\text{ °C}$ , unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current $V_R = 3\text{ V}$	$I_R$	—	—	10	nA
Forward voltage $I_F = 1\text{ mA}$	$V_F$	—	190	300	mV
Diode capacitance $V_R = 0.2\text{ V}, f = 1\text{ MHz}$	$C_T$	—	0.65	0.85	pF
Case capacitance	$C_C$	—	0.1	—	pF
Differential resistance $V = 0, f = 10\text{ kHz}$	$R_0$	—	30	—	kΩ
Series inductance	$L_S$	—	2	—	nH

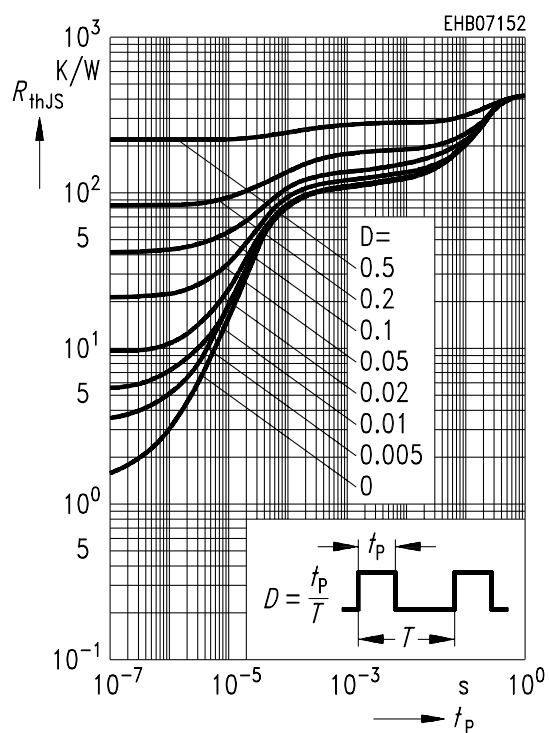
**Forward current  $I_F = f(V_F)$**



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



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



**Permissible Pulse load  $I_{Fmax} / I_{FDC} = f(t_p)$   
 $T_A = 25^\circ\text{C}$**

