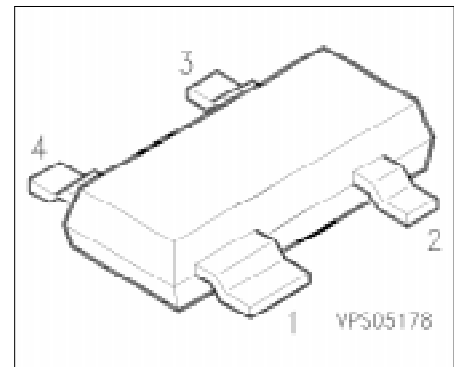


Silicon Schottky Diode

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

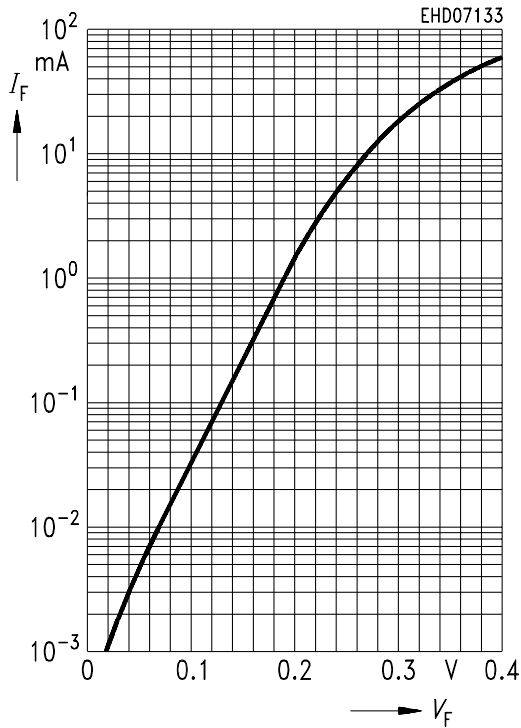
Junction-ambient ¹⁾	$R_{th JA}$	≤ 450	K/W
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1) Package mounted on aluminum 15 mm x 16.7 mm x 0.7 mm.

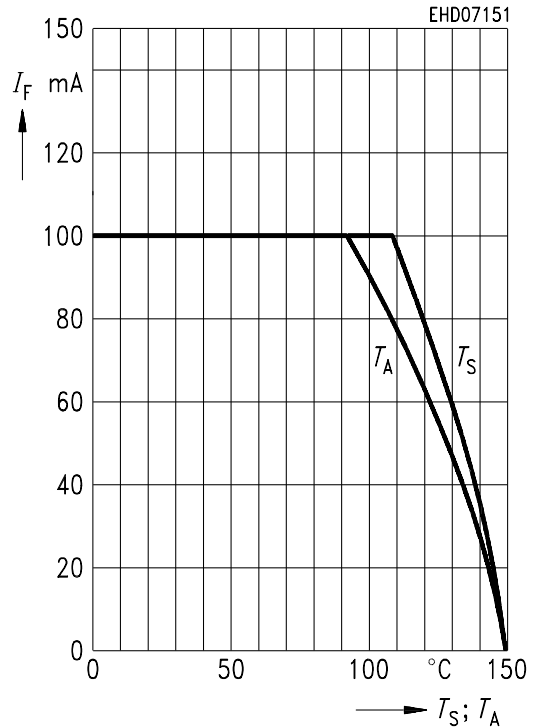
Electrical Characteristicsat $T_A = 25\text{ °C}$, unless otherwise specified.

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	–	k Ω
Series inductance	L_S	–	2	–	nH

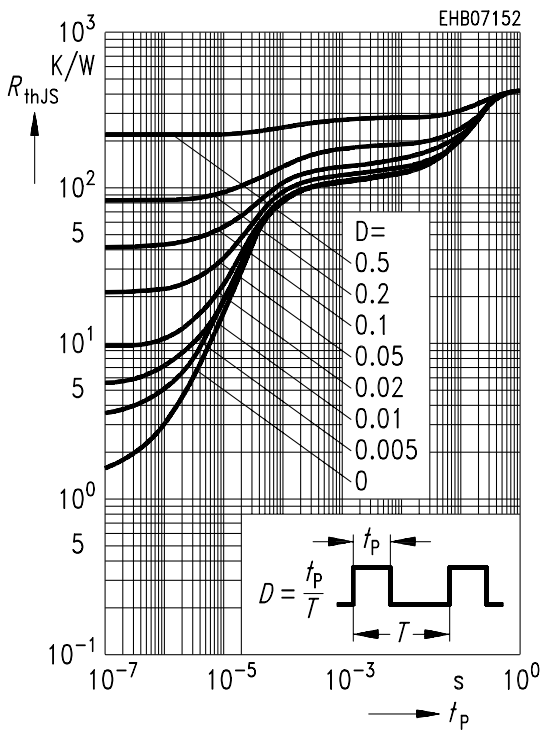
Forward current $I_F = f(V_F)$



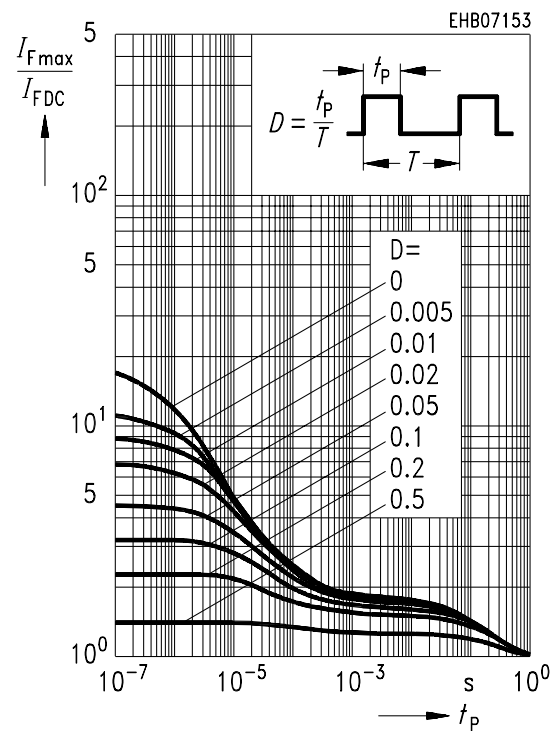
Forward current $I_F = f(T_S; T_A)$



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



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



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