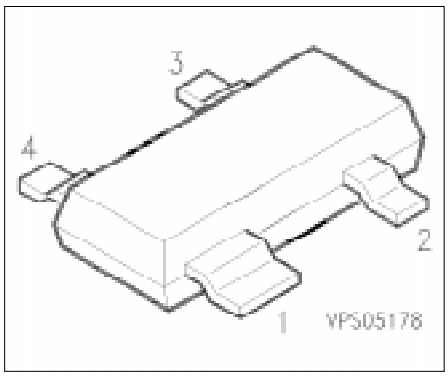
SIEMENS

Silicon Schottky Diode

BAT 63

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



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

Maximum Ratings

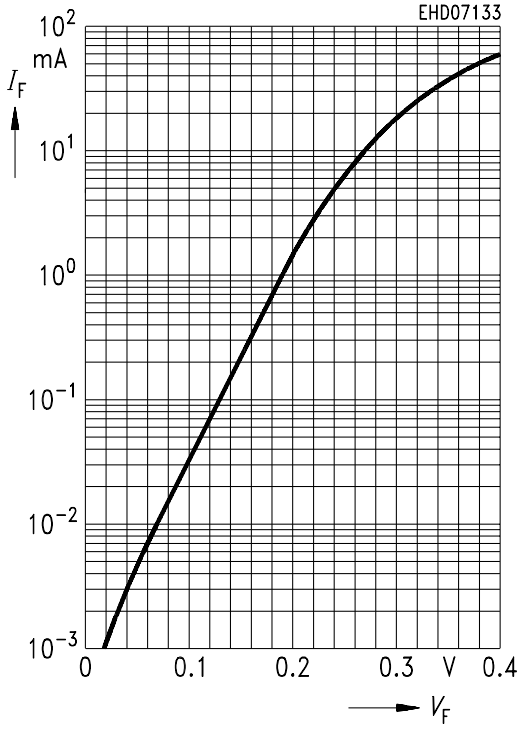
Parameter	Symbol	Values	Unit
Reverse voltage	V_R	3	V
Forward current	I_F	100	mA
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	– 55 … + 150	°C
Thermal Resistance			
Junction-ambient[1)]	$R_{th\ JA}$	≤ 450	K/W

1) Package mounted on aluminum 15 mm x 16.7 mm x 0.7 mm.

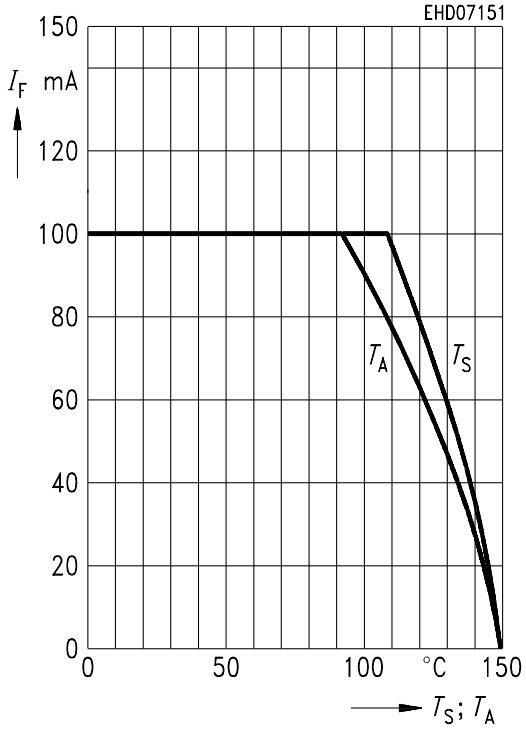
Electrical Characteristics
at T_A = 25 °C, unless otherwise specified.

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

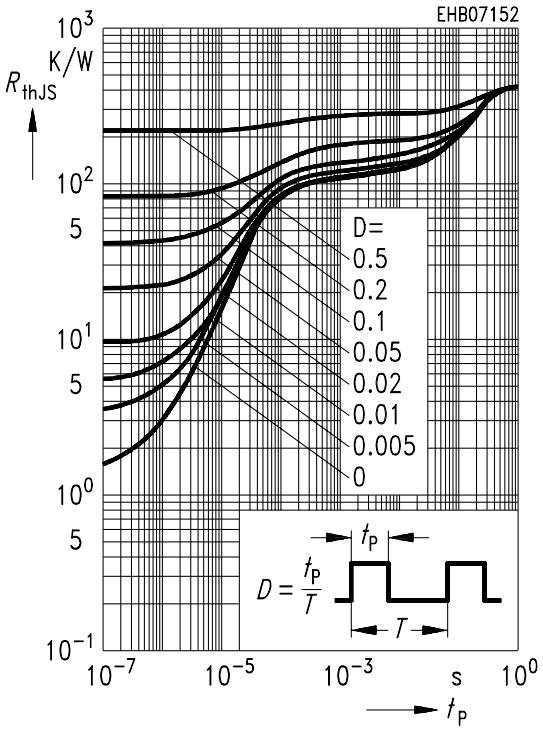
Forward current $I_F = f(V_F)$



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 °C