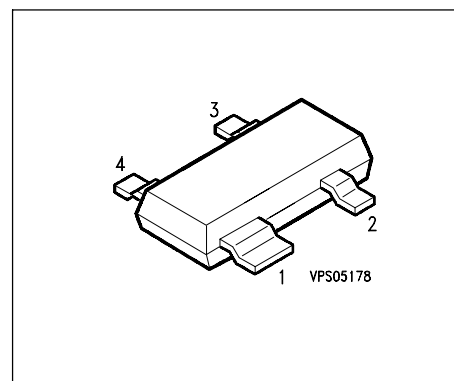


Silicon Schottky Diodes

Preliminary data

- For low-loss, fast-recovery, meter protection, bias isolation and clamping applications
- Integrated diffused guard ring
- Low forward voltage



ESD: ElectroStatic Discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code	Pin Configuration				Package
BAT 64-07	67s	Q62702-A964	1 = C1	2 = C2	3 = A2	4 = A1	SOT-143

Maximum Ratings

Parameter	Symbol	Values	Unit
Diode reverse voltage	V_R	40	V
Forward current	I_F	250	mA
Average forward current (50/60Hz, sinus)	I_{FAV}	120	
Surge forward current ($t \leq 10\text{ms}$)	I_{FSM}	800	
Total Power dissipation $T_S = 61^\circ\text{C}$	P_{tot}	250	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	- 55 ... + 150	

Thermal Resistance

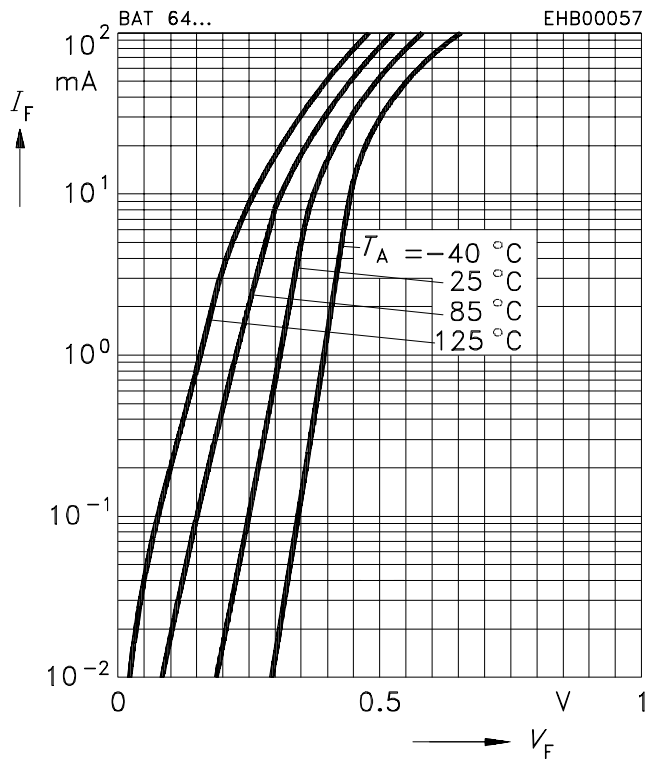
Junction ambient ¹⁾	R_{thJA}	≤ 495	K/W
Junction - soldering point	R_{thJS}	≤ 355	

1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 0.5cm² Cu

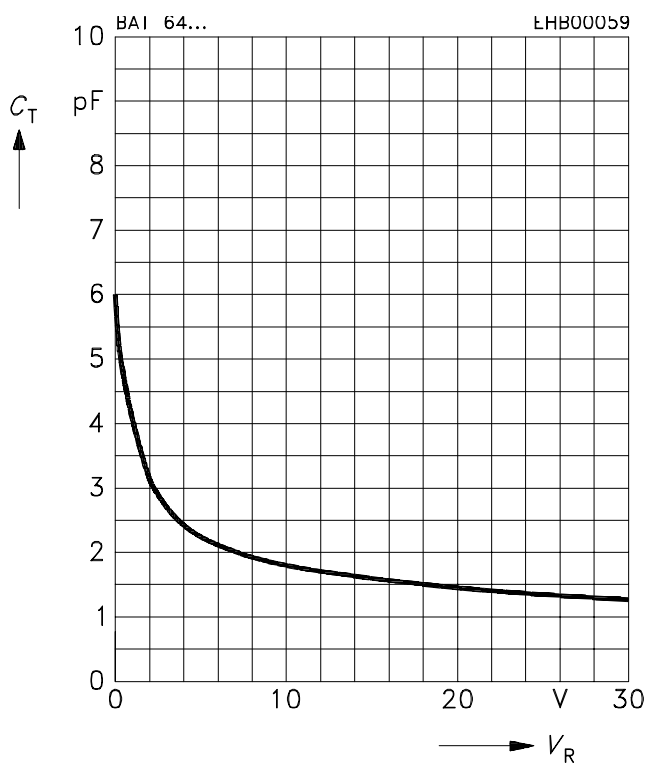
Electrical Characteristics at $T_A=25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current	I_R				μA
$V_R = 25\text{ V}, T_A = 25\text{ }^\circ\text{C}$		-	-	2	
$V_R = 25\text{ V}, T_A = 85\text{ }^\circ\text{C}$		-	-	200	
Forward voltage	V_F				
$I_F = 1\text{ mA}$		-	320	350	mV
$I_F = 10\text{ mA}$		-	385	430	V
$I_F = 30\text{ mA}$		-	440	520	
$I_F = 100\text{ mA}$		-	570	750	
AC Characteristics					
Diode capacitance	C_T				pF
$V_R = 1\text{ V}, f = 1\text{ MHz}$		-	4	6	

Forward Current $I_F = f(V_F)$

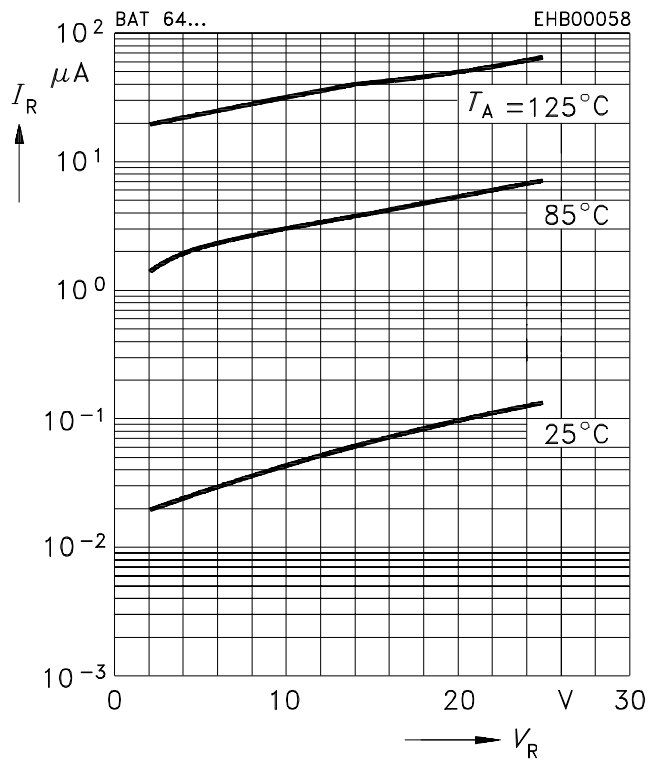


Diode capacitance $C_T = f(V_R)$ $f = 1\text{ MHz}$



Reverse current $I_R = f(V_R)$

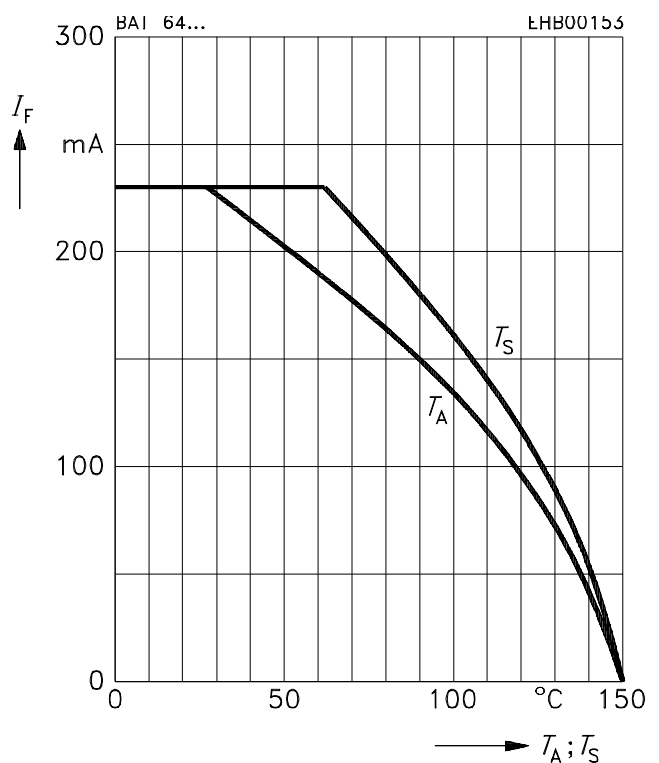
$T_A = \text{Parameter}$



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

* Package mounted on epoxy

BAT 64-04... (I_F per diode)



Package

