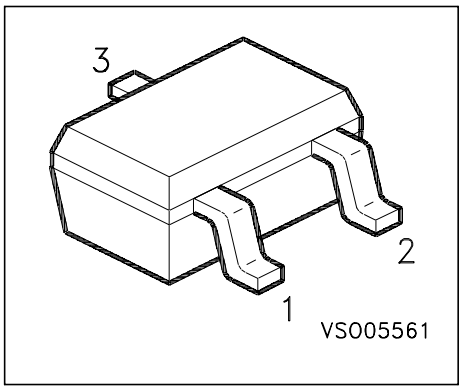
Silicon Schottky Diodes

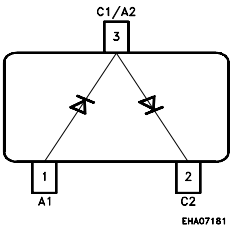
Preliminary data

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

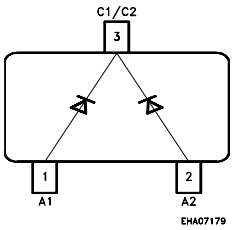


Pin Configuration

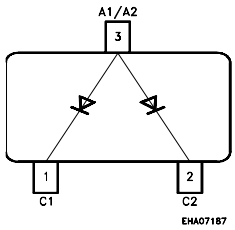
BAT 64-04W



BAT64-05W



BAT64-06W



ESD: **E**lectro**S**tatic **D**ischarge sensitive device, observe handling precautions!

Type	Marking	Ordering Code	Pin Configuration			Package
BAT 64-04W	64s	Q62702-A1160	1 = A	2 = C	3 = C/A	SOT-323
BAT 64-05W	65s	Q62702-A1161	1 = A	2 = A	3 = C/C	SOT-323
BAT 64-06W	66s	Q62702-A1162	1 = C	2 = C	3 = A/A	SOT-323
BAT 64W	63s	Q62702-A1159	1 = A		3 = C	SOT-323

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 ($t \leq 10$ms)	I_{FSM}	800	
Total Power dissipation T_S = 61 °C	P_{tot}	250	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	- 55 ... + 150	

Thermal Resistance

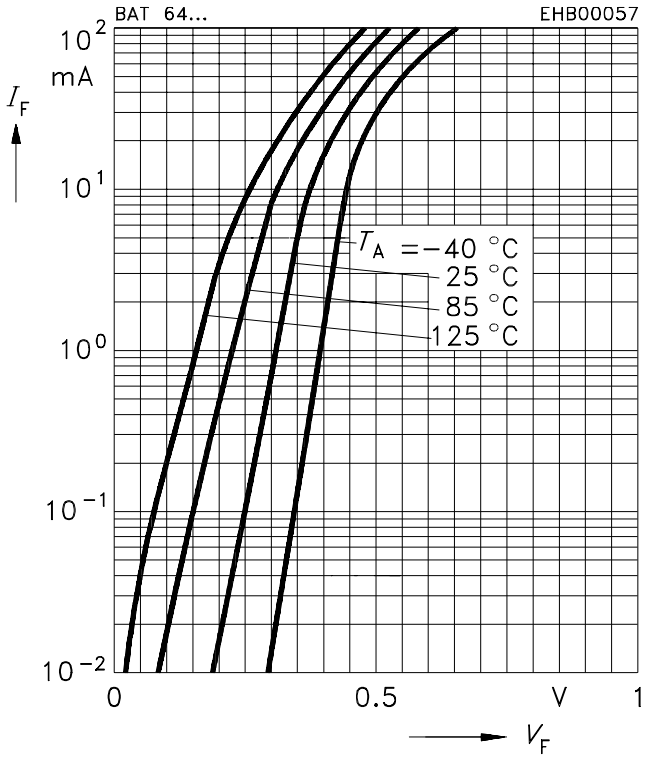
Junction ambient [1)]	R_{thJA}	≤ 495	K/W
Junction - soldering point	R_{thJS}	≤ 355	

1) Package mounted on epoxy pcb 40mm x 40mmm x 1.5mm / 0.5cm^2 Cu

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

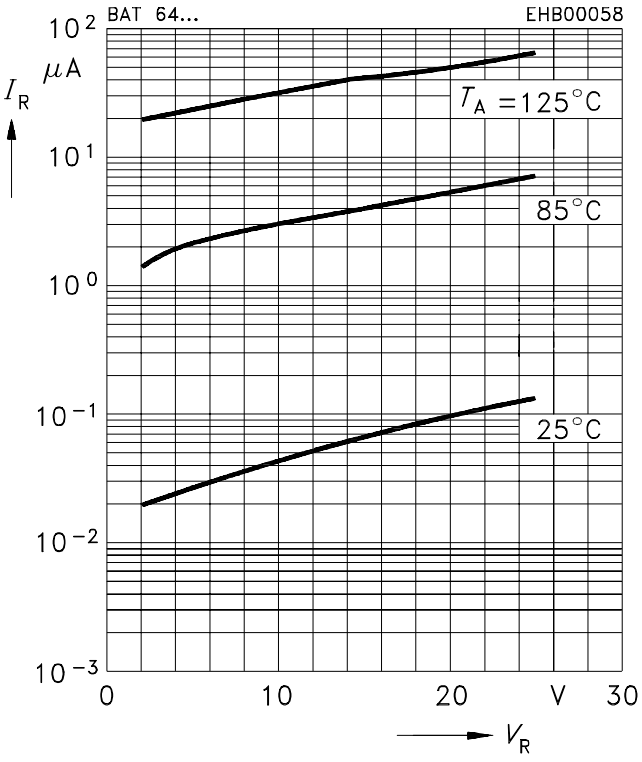
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current	I_R				µA
V_R = 25 V, T_A = 25 °C		-	-	2	
V_R = 25 V, T_A = 85 °C		-	-	200	
Forward voltage	V_F				
I_F = 1 mA		-	320	350	mV
I_F = 10 mA		-	385	430	V
I_F = 30 mA		-	440	520	
I_F = 100 mA		-	570	750	
AC Characteristics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

Forward Current $I_F = f(V_F)$



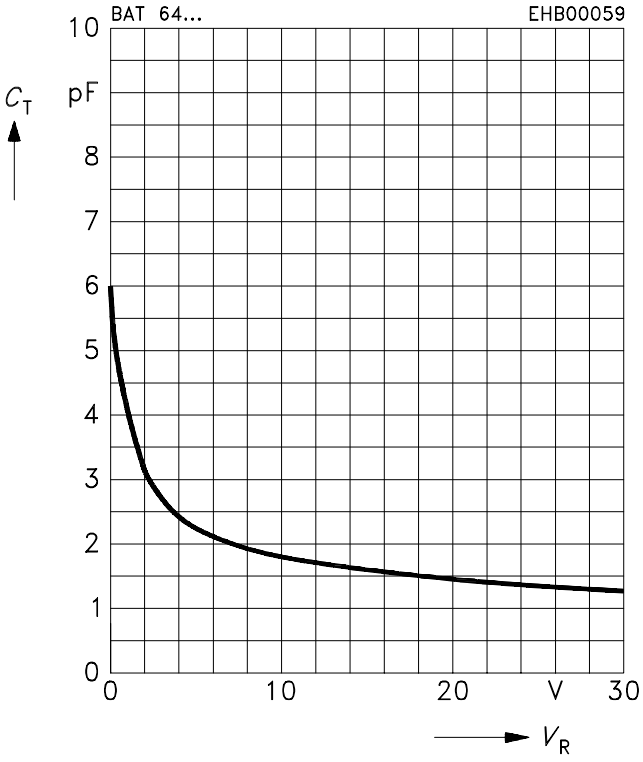
Reverse current $I_R = f(V_R)$

T_A = Parameter



Diode capacitance $C_T = f(V_R)$

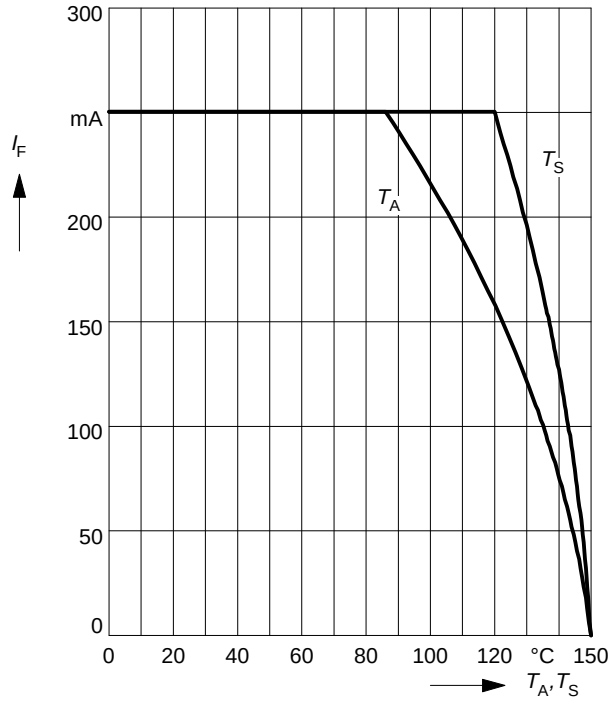
f = 1MHz



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

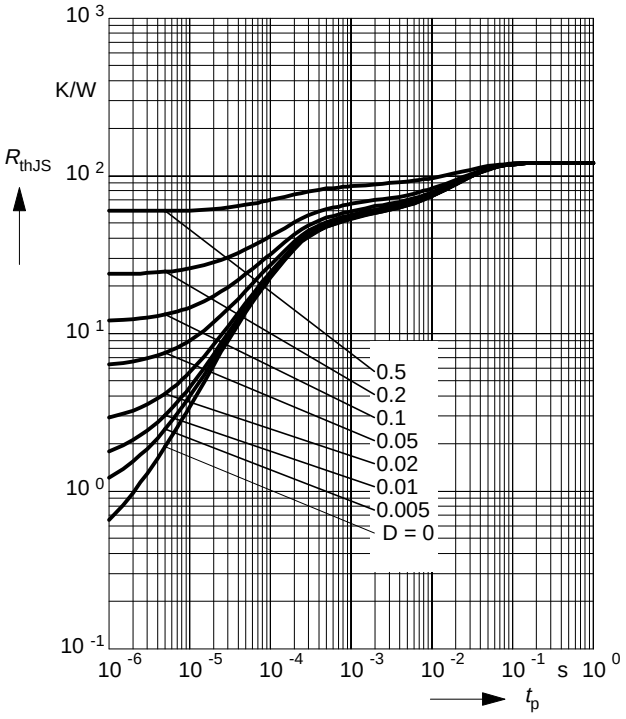
* Package mounted on epoxy

BAT 64W



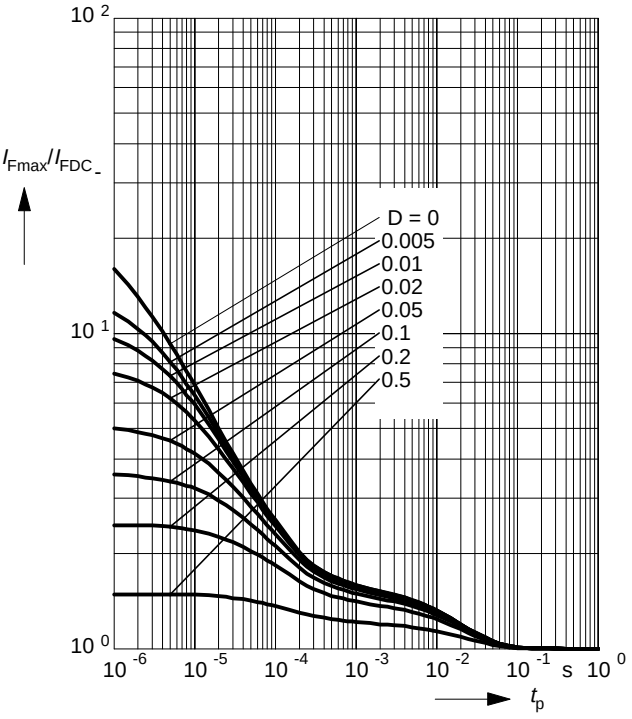
Permissible Pulse Load $R_{THJS} = f(t_p)$

BAT 64W



Permissible Pulse Load $I_{Fmax}/I_{FDC} = f(t_p)$

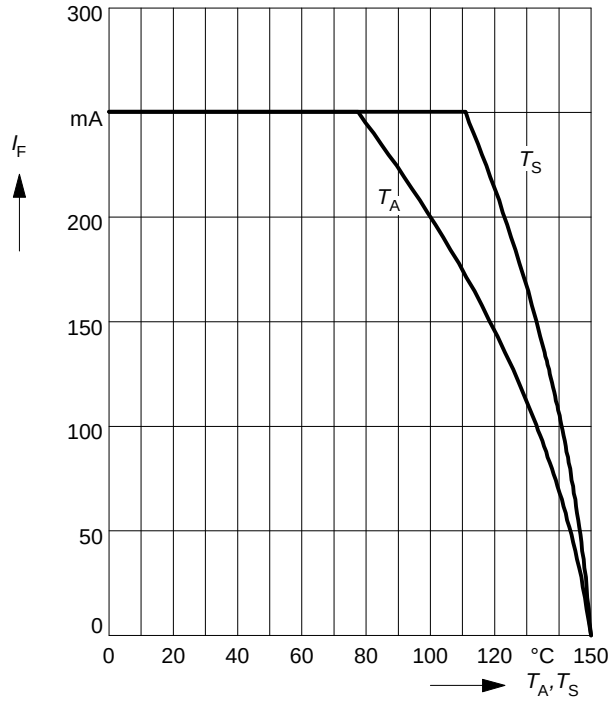
BAT 64W



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

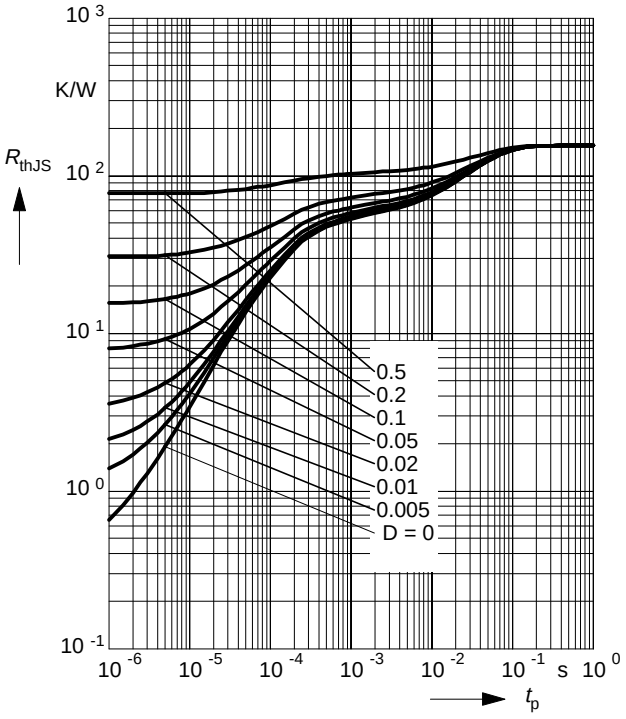
* Package mounted on epoxy

BAT 64-04/06W



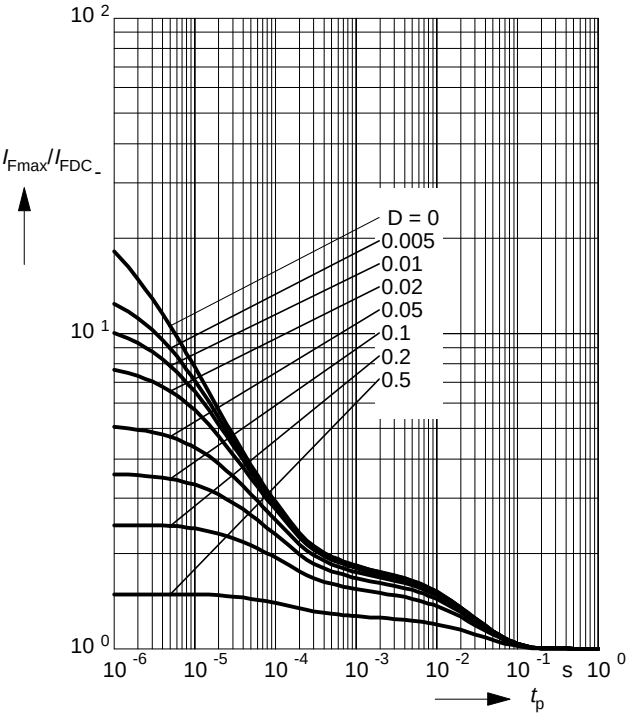
Permissible Pulse Load $R_{THJS} = f(t_p)$

BAT 64-04/06W



Permissible Pulse Load $I_{Fmax}/I_{FDC} = f(t_p)$

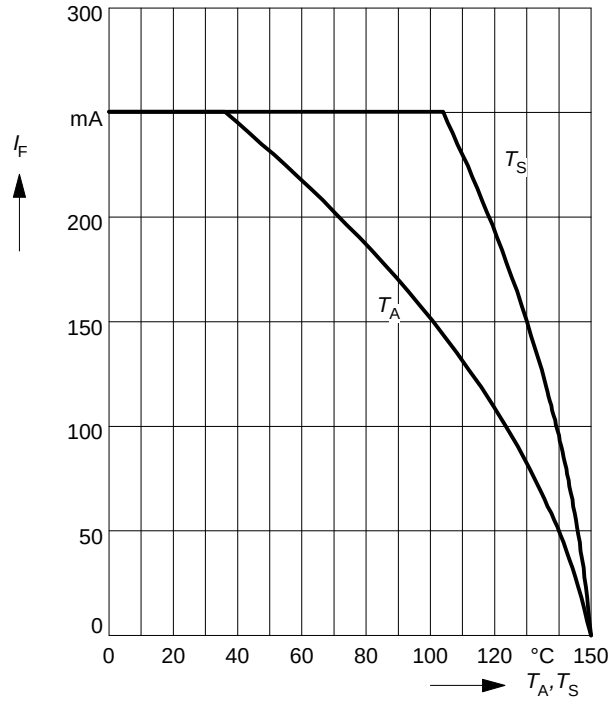
BAT 64-04/06W



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

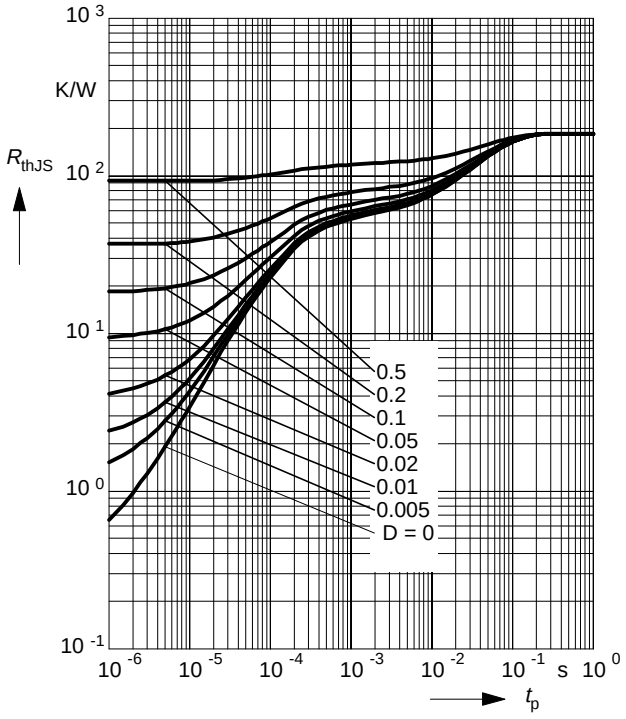
* Package mounted on epoxy

BAT 64-05W



Permissible Pulse Load $R_{THJS} = f(t_p)$

BAT 64-05W



Permissible Pulse Load $I_{Fmax}/I_{FDC} = f(t_p)$

BAT 64-05W