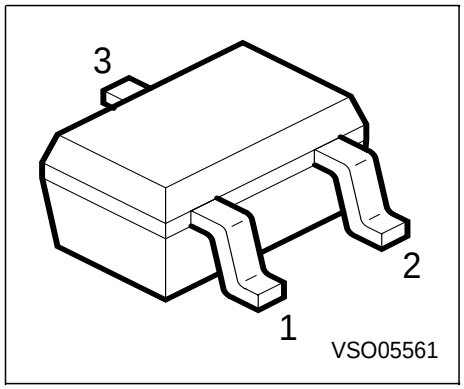
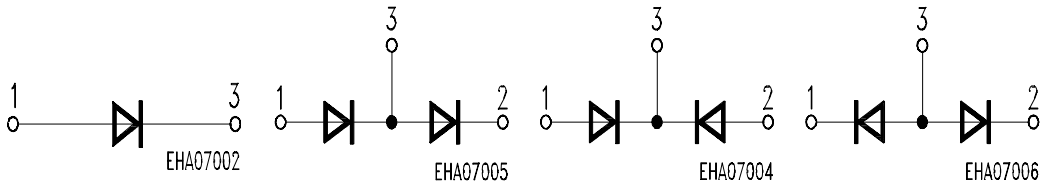
Silicon Schottky Diodes

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



BAT 64W **BAT 64-04W** **BAT 64-05W** **BAT 64-06W**



ESD: **E**lectro**s**tatic **d**ischarge sensitive device, observe handling precaution!

Type	Marking	Ordering Code	Pin Configuration			Package
BAT 64W	63s	Q62702-A1159	1 = A	2 n.c.	3 = C	SOT-323
BAT 64-04W	64s	Q62702-A1160	1 = A1	2 = C2	3 = C1/A2	
BAT 64-05W	65s	Q62702-A1161	1 = A1	2 = A2	3 = C1/2	
BAT 64-06W	66s	Q62702-A1162	1 = C1	2 = C2	3 = A1/2	

Maximum Ratings

Parameter	Symbol	Value	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< 100µs)	I_{FSM}	800	
Total power dissipation BAT 64W, T_S≤120°C	P_{tot}	250	mW
Total power dissipat. BAT64-04/06W, T_S≤111°C	P_{tot}	250	
Total power dissipation BAR 64-05W, T_S≤104°C	P_{tot}	250	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55...+150	

Thermal Resistance

Junction - ambient [1] BAT 64W	R_{thJA}	≤255	K/W
Junction - ambient [1] BAT 64-04/06W	R_{thJA}	≤290	
Junction - ambient [1] BAT 64-05W	R_{thJA}	≤455	
Junction - soldering point BAT 64W	R_{thJS}	≤120	
Junction - soldering point BAT 64-04/06W	R_{thJS}	≤155	
Junction - soldering point BAT 64-05W	R_{thJS}	≤185	

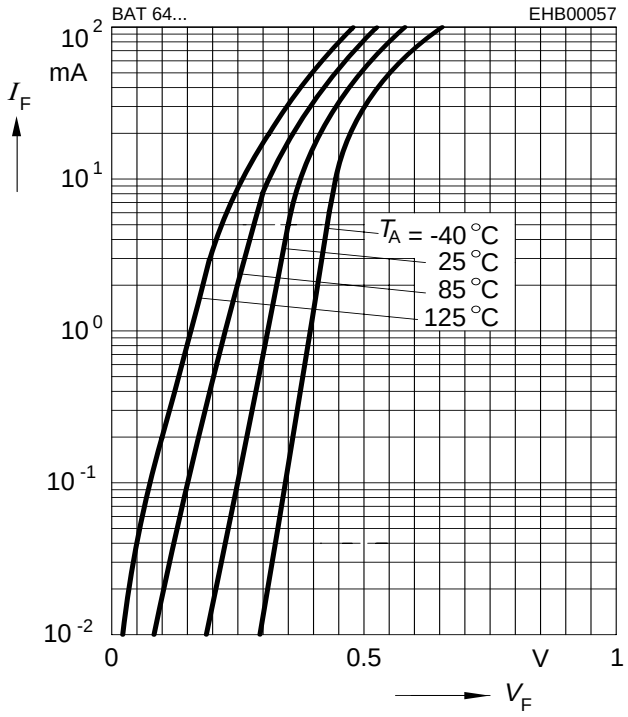
1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 6cm^2 Cu

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

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

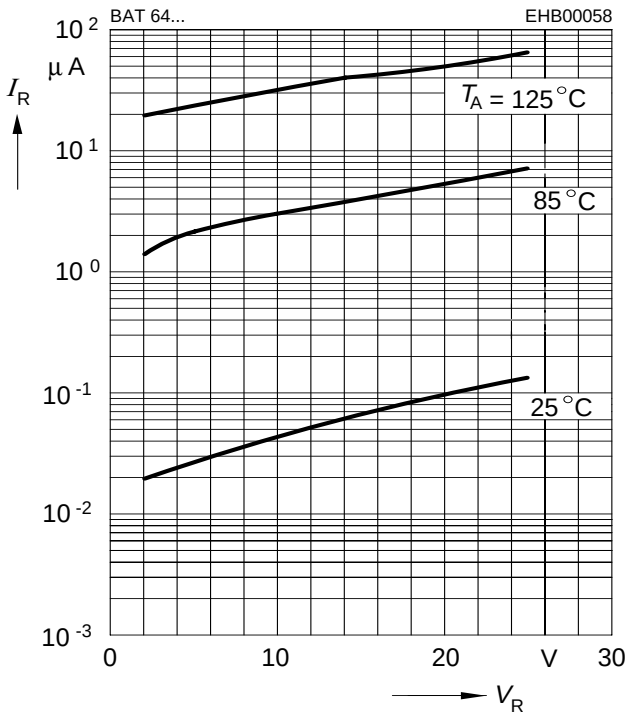
Forward current $I_F = f(V_F)$

T_A = Parameter



Reverse current $I_R = f(V_R)$

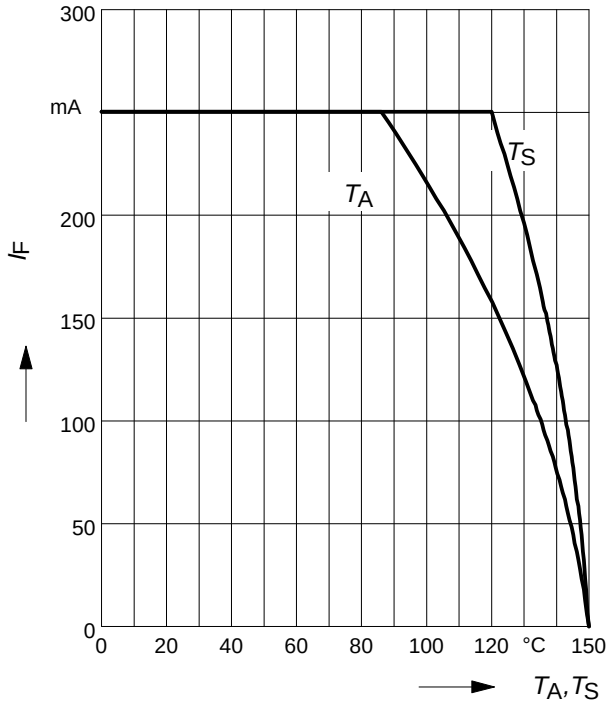
T_A = Parameter



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

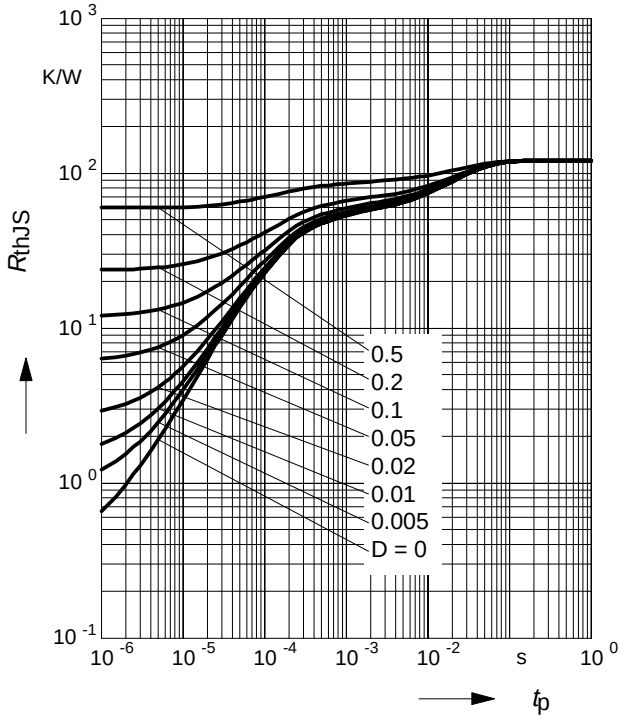
*Package mounted on epoxy

BAT 64W



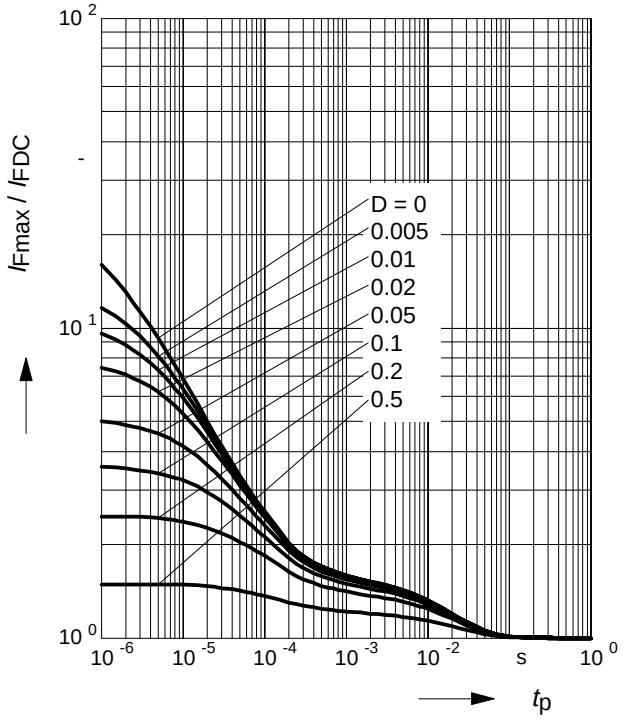
Permissible Pulse Load $R_{thJS} = f(t_p)$

BAT 64W



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

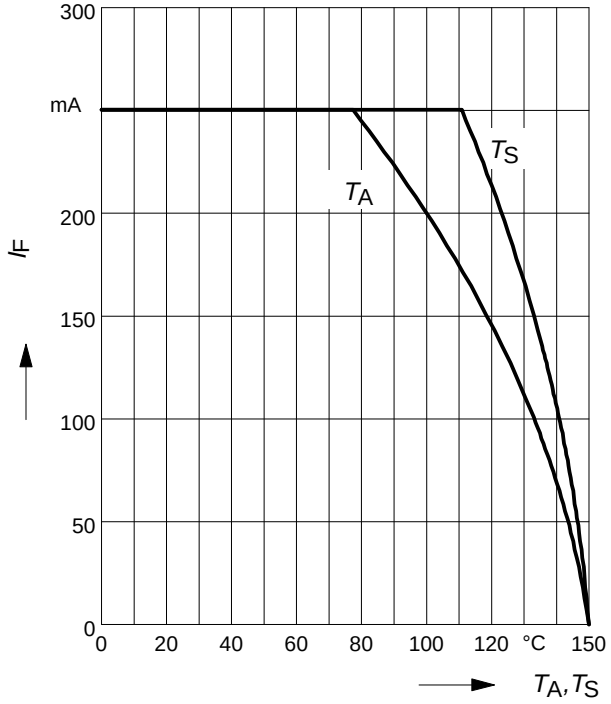
BAT 64W



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

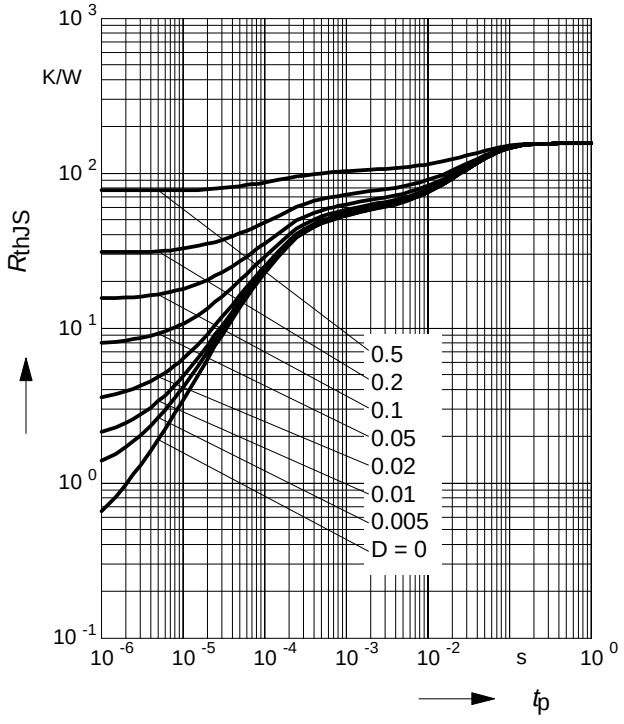
* Package mounted on epoxy

BAT 64-04/06W



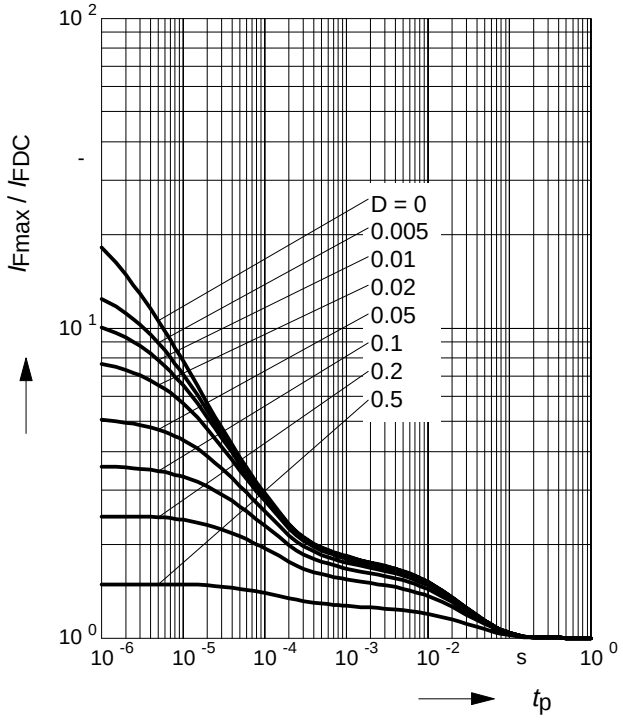
Permissible Pulse Load $R_{thJS} = f(t_p)$

BAT 64-04/06



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

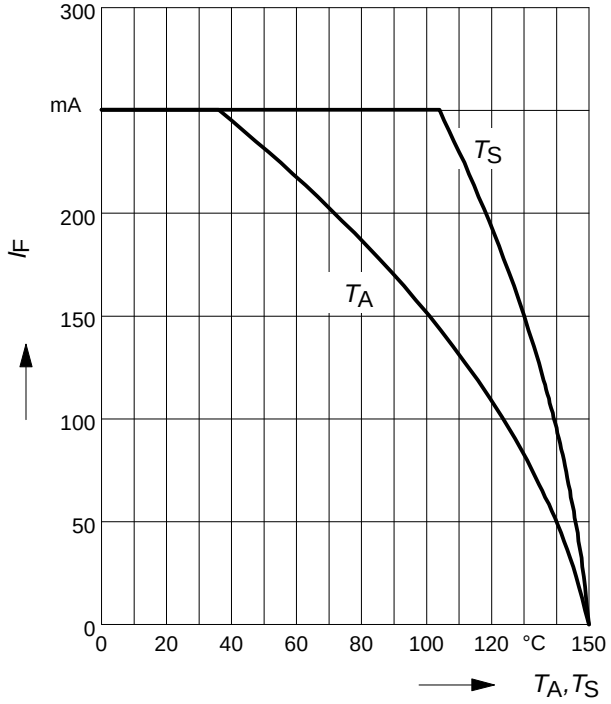
BAT 64-04/06W



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

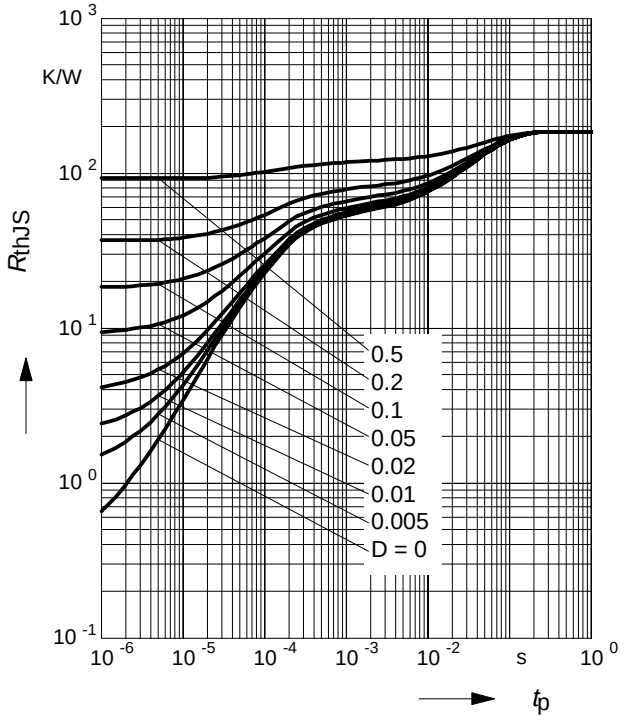
* Package mounted on epoxy

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