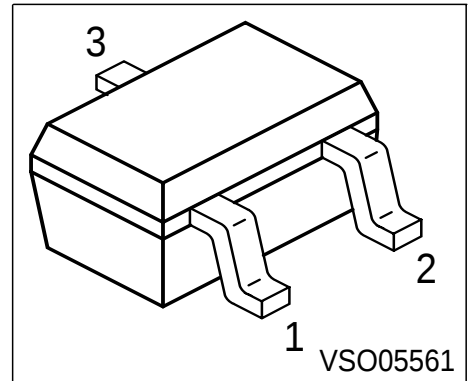
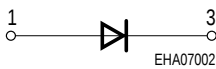


Silicon Schottky Diode

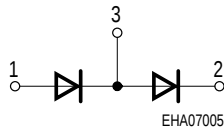
- For low-loss, fast-recovery, meter protection, bias isolation and clamping applications
- Integrated diffused guard ring
- Low forward voltage



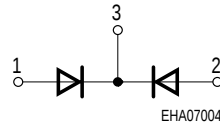
BAT64W



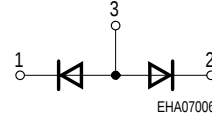
BAT64-04W



BAT64-05W



BAT64-06W



ESD: Electrostatic discharge sensitive device, observe handling precaution!

Type	Marking	Pin Configuration			Package
BAT64-04W	64s	1 = A1	2 = C2	3 = C1/A2	SOT323
BAT64-05W	65s	1 = A1	2 = A2	3 = C1/C2	SOT323
BAT64-06W	66s	1 = C1	2 = C2	3 = A1/A2	SOT323
BAT64W	63s	1 = A	2 n.c.	3 = C	SOT323

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	40	V
Forward current	I_F	250	mA
Surge forward current, $t \leq 10\text{ms}$	I_{FSM}	800	
Average forward current (50/60Hz, sinus)	I_{FAV}	120	
Total power dissipation	P_{tot}		mW
$T_S \leq 120^\circ\text{C}$, BAT64W		250	
$T_S \leq 111^\circ\text{C}$, BAT64-04 / BAT64-06W		250	
$T_S \leq 104^\circ\text{C}$, BAT64-05W		250	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾	R_{thJS}		K/W
BAT64W		≤ 120	
BAT64-04W / BAT64-06W		≤ 155	
BAT64-05W		≤ 185	

¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	

DC Characteristics

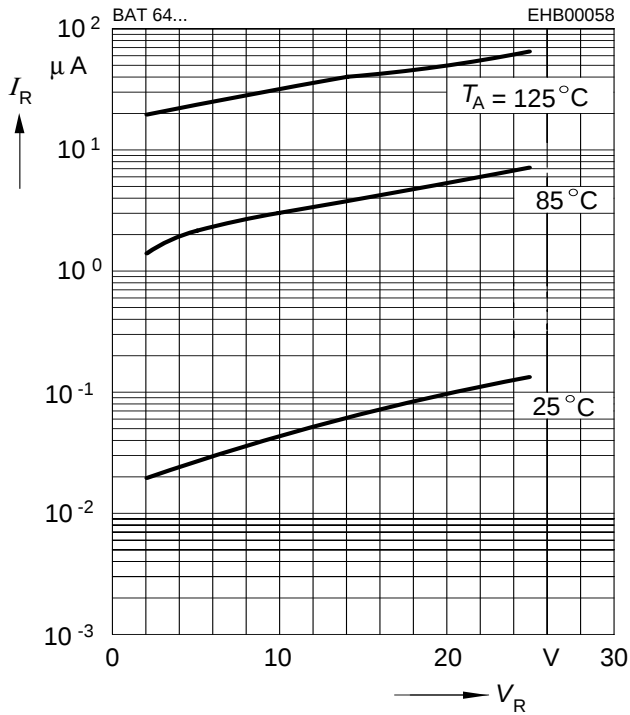
Reverse current	I_R				μA
$V_R = 30\text{ V}$		-	-	2	
$V_R = 30\text{ V}, T_A = 85^\circ\text{C}$		-	-	200	
Forward voltage	V_F				V
$I_F = 1\text{ mA}$		-	320	350	
$I_F = 10\text{ mA}$		-	385	430	
$I_F = 30\text{ mA}$		-	440	520	
$I_F = 100\text{ mA}$		-	570	750	

AC Characteristics

Diode capacitance-	C_T	-	4	6	pF
$V_R = 1\text{ V}, f = 1\text{ MHz}$					

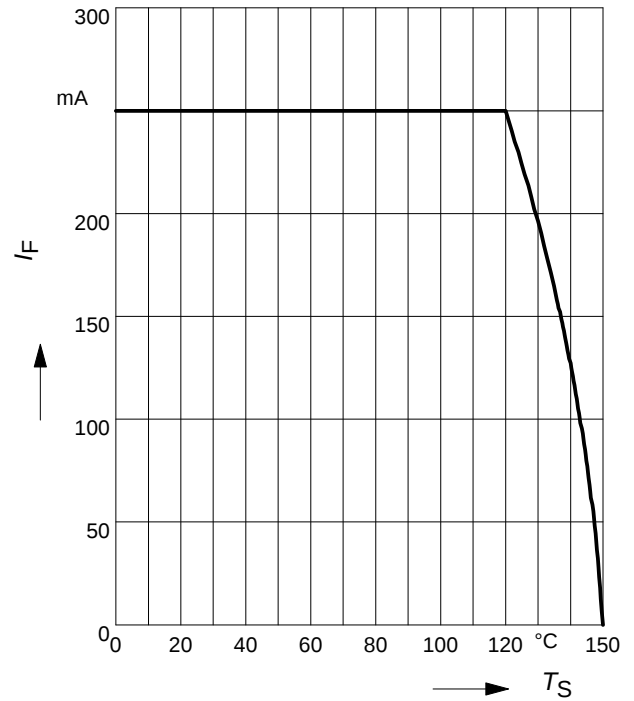
Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$



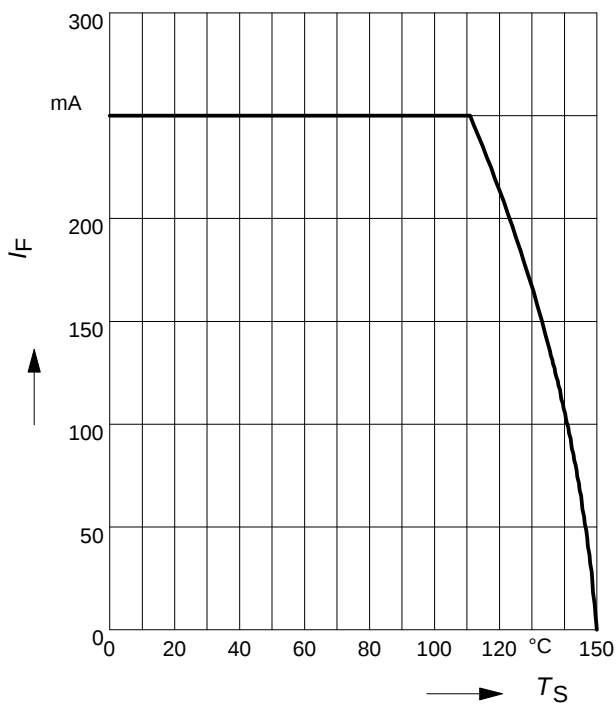
Forward current $I_F = f(T_S)$

BAT64W



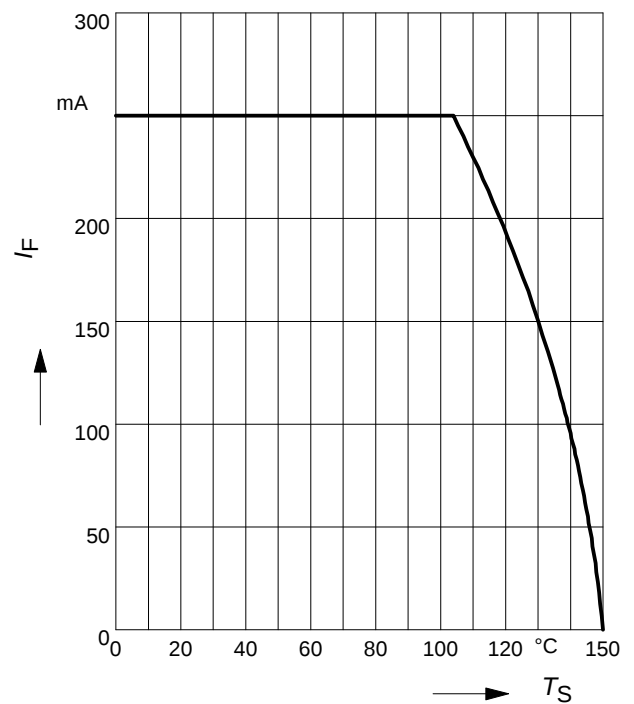
Forward current $I_F = f(T_S)$

BAT64-04W / BAT64-06W



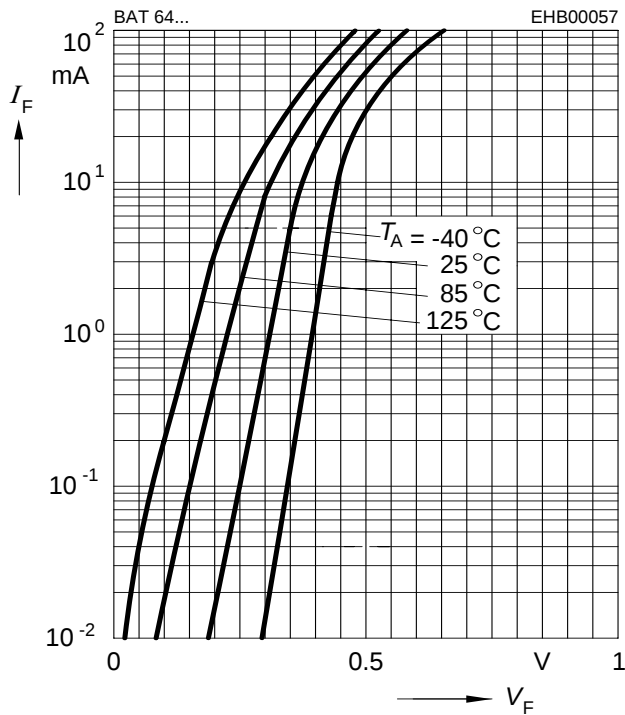
Forward current $I_F = f(T_S)$

BAT64-05W



Forward current $I_F = f(V_F)$

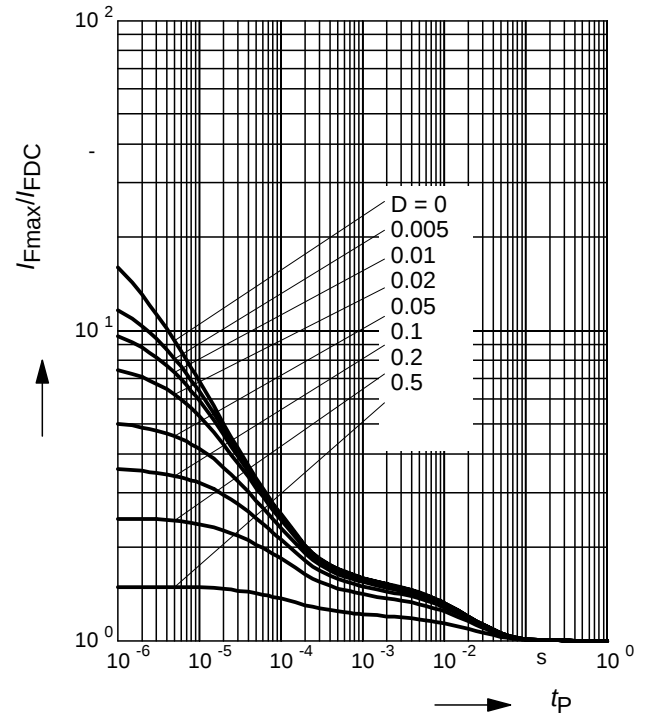
$T_A = \text{Parameter}$



Permissible Pulse Load

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

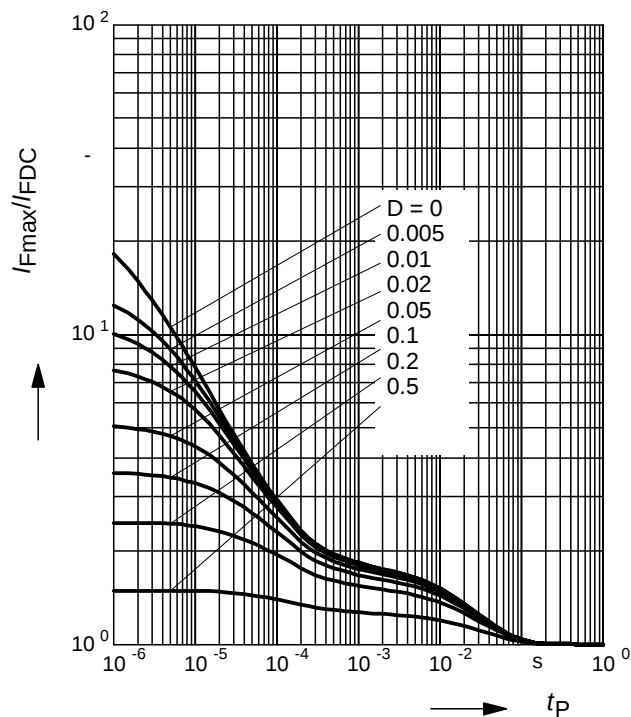
BAT64W



Permissible Pulse Load

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

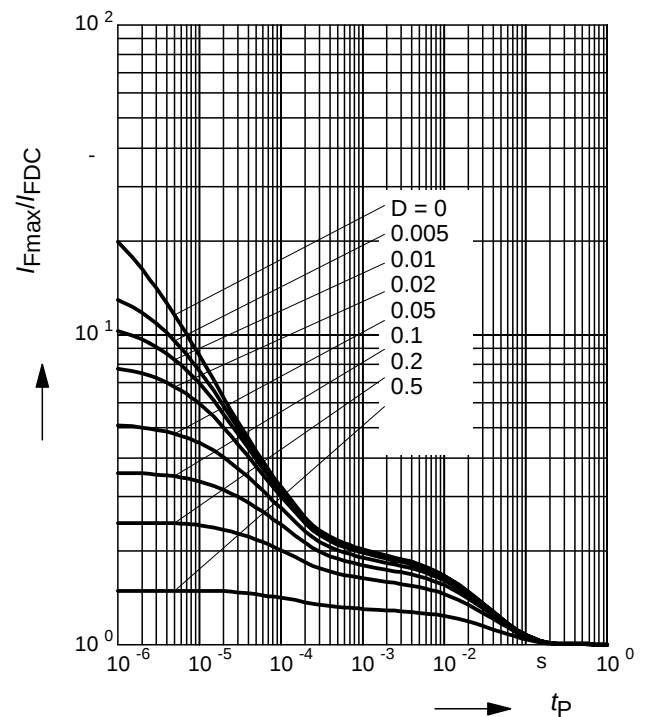
BAT64-04W / BAT64-06W



Permissible Pulse Load

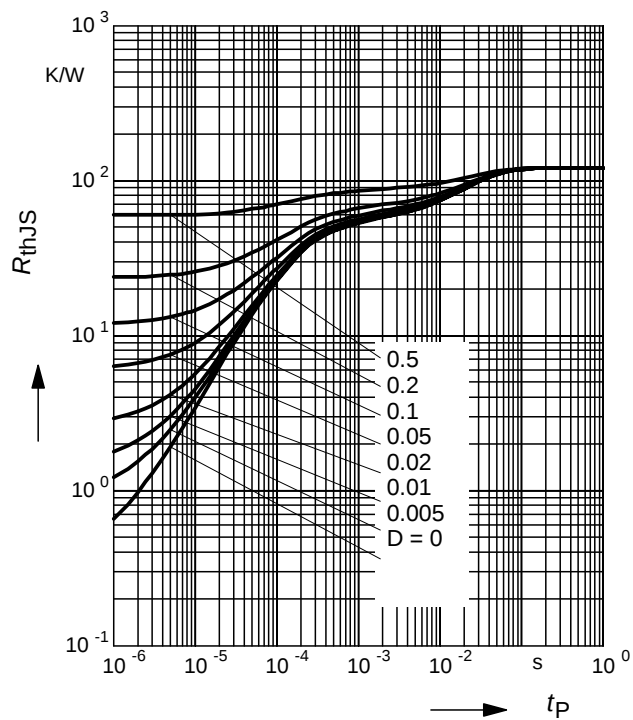
$$I_{Fmax}/I_{FDC} = f(t_p)$$

BAT64-05W



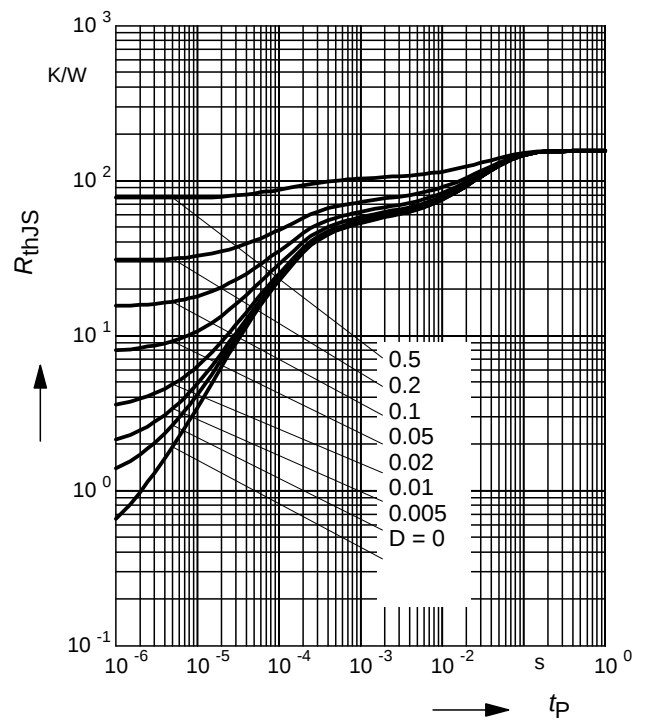
Permissible Puls Load $R_{thJS} = f(t_p)$

BAT64W



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

BAT64-04 / BAT64-06W



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

BAT64-05W

