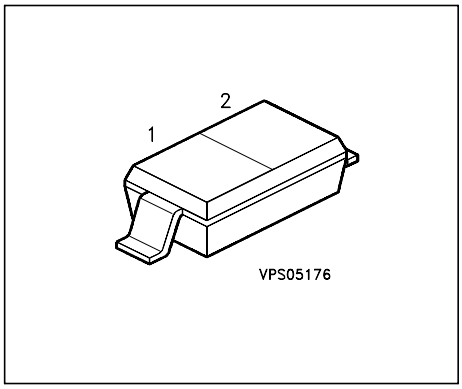
Silicon Schottky Diode

Preliminary data

- Low-power Schottky rectifier diode
- For low-loss, fast recovery rectification, meter protection, bias isolation and clamping purposes
- Miniature plastic package for surface mounting (SMD)



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

Type	Marking	Ordering Code	Pin Configuration			Package
BAT 165	White/C	Q62702-A1190	1 = C	2 = A		SOD-323

Maximum Ratings

Parameter	Symbol	Values	Unit
Diode reverse voltage	V_R	40	V
Forward current	I_F	750	mA
Average forward current (50/60Hz, sinus)	I_{FAV}	500	
Surge forward current ($t \leq 10$ms)	I_{FSM}	2.5	A
Total Power dissipation T_S = 66 °C	P_{tot}	600	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	- 65 ... + 150	

Thermal Resistance

Junction ambient [1)]	R_{thJA}	≤ 275	K/W
Junction - soldering point	R_{thJS}	≤ 140	

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

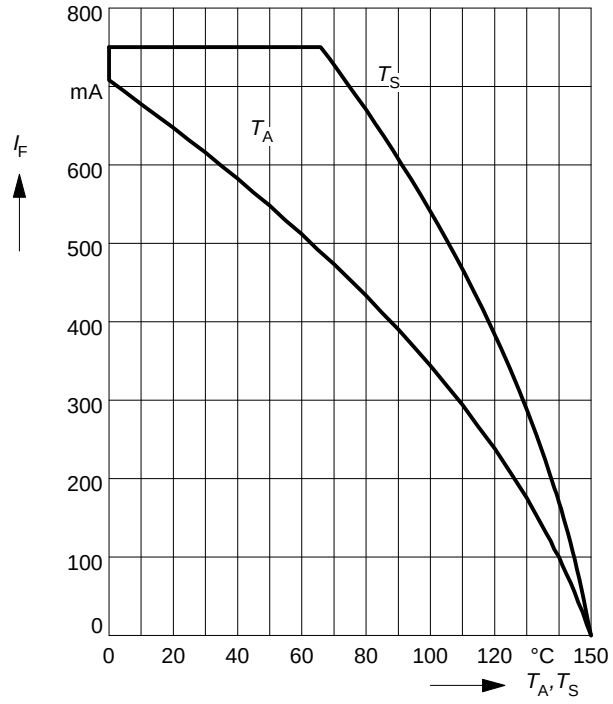
Electrical Characteristics at T_A=25°C, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current	I_R				µA
V_R = 30 V, T_A = 25 °C		-	-	50	
V_R = 30 V, T_A = 65 °C		-	-	900	
Forward voltage	V_F				V
I_F = 10 mA		-	0.305	0.4	
I_F = 100 mA		-	0.38	-	
I_F = 250 mA		-	0.44	0.7	
I_F = 750 mA		-	0.58	-	
AC Characteristics					
Diode capacitance	C_T				pF
V_R = 10 V, f = 1 MHz		-	8.4	12	

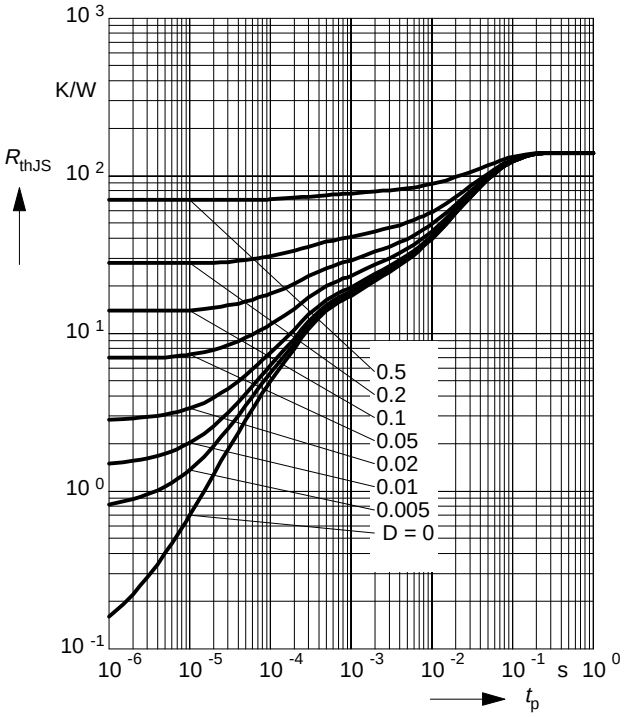
Forward current $I_F = f(T_A^*; T_S)$

*): mounted on epoxy PCB

40mm x 40mm x 1.5mm/ 6cm^2 Cu



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



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