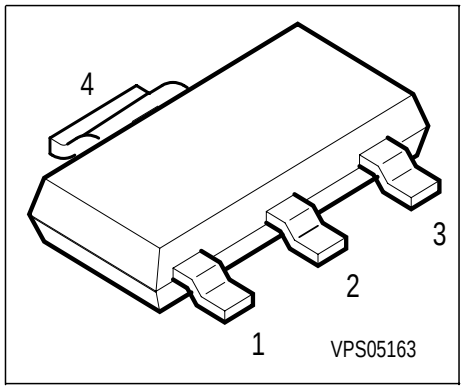
Silicon Schottky Diodes

- Parallel connection for maximum I_F per package
- Low forward voltage drop
- For power supply
- For clamping and protection



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

Type	Marking	Ordering Code	Pin Configuration				Package
BAT 70-05	BAT 70-05	Q62702-A1223	1 = A1	2 n.c.	3 = A2	4=C1/C2	SOT-223

Maximum Ratings

Parameter	Symbol	Value	Unit
Reverse voltage, T_S < 75°C 1)	V_R	50	V
Reverse voltage, T_S < 50°C 1)	V_R	70	
Peak reverse voltage, T_S < 70°C, t < 10ms 2)	V_{RM}	70	
Forward current	I_F	1.5	A
Average forward current (50/60Hz, sinus)	I_{FAV}	1.5	
Surge forward current (t< 100µs)	I_{FSM}	5	
Total power dissipation, $T_S \leq$ 130 °C	P_{tot}	1.5	W
Total power dissipation, both diodes, $T_S \leq$ 120 °C	P_{tot}	3	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	- 65 ...+150	

Maximum Ratings

Junction - ambient 1)	R_{thJA}	≤ 82	K/W
Junction - soldering point	R_{thJS}	≤12	

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

2) see DC/pulse derating curve $V_R = f(T_A)$

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 = 50 V		-	10	100	
V_R = 70 V		-	60	1000	
Reverse current	I_R	-	1	15	mA
V_R = 50 V, T_A = 75 °C					
Forward voltage	V_F				V
I_F = 1 mA		-	0.2	-	
I_F = 10 mA		-	0.26	-	
I_F = 100 mA		-	0.33	-	
I_F = 1.5 A		-	0.52	0.6	
AC characteristics					
Diode capacitance	C_T				pF
V_R = 0 V, f = 1 MHz		-	236	-	
V_R = 10 V, f = 1 MHz		-	48.8	-	

Forward voltage $V_F = f(T_A)$

for t_p = 10ms and 100ms, Duty cycle < 1/100