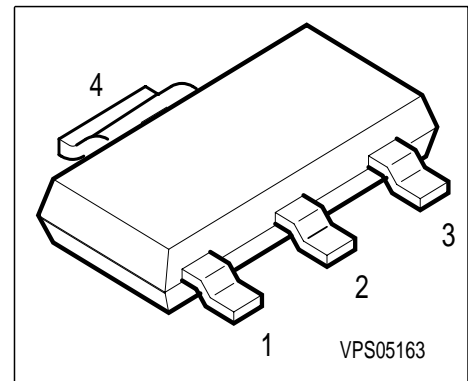


### Silicon Schottky Diodes

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



**ESD: Electrostatic discharge 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, $T_S < 75^\circ\text{C}$ <sup>1)</sup>	$V_R$	50	V
Reverse voltage, $T_S < 50^\circ\text{C}$ <sup>1)</sup>	$V_R$	70	
Peak reverse voltage, $T_S < 70^\circ\text{C}$ , $t < 10\text{ms}$ <sup>2)</sup>	$V_{RM}$	70	
Forward current	$I_F$	1.5	A
Average forward current (50/60Hz, sinus)	$I_{FAV}$	1.5	
Surge forward current ( $t < 100\mu\text{s}$ )	$I_{FSM}$	5	
Total power dissipation, $T_S \leq 130^\circ\text{C}$	$P_{tot}$	1.5	W
Total power dissipation, both diodes, $T_S \leq 120^\circ\text{C}$	$P_{tot}$	3	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	- 65 ...+150	

#### Maximum Ratings

Junction - ambient <sup>1)</sup>	$R_{thJA}$	$\leq 82$	K/W
Junction - soldering point	$R_{thJS}$	$\leq 12$	

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

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

**Electrical Characteristics** at  $T_A = 25\text{ °C}$ , unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC characteristics</b>					
Reverse current $V_R = 50\text{ V}$ $V_R = 70\text{ V}$	$I_R$	-	10 60	100 1000	$\mu\text{A}$
Reverse current $V_R = 50\text{ V}, T_A = 75\text{ °C}$	$I_R$	-	1	15	mA
Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 100\text{ mA}$ $I_F = 1.5\text{ A}$	$V_F$	-	0.2 0.26 0.33 0.52	- - - 0.6	V
<b>AC characteristics</b>					
Diode capacitance $V_R = 0\text{ V}, f = 1\text{ MHz}$ $V_R = 10\text{ V}, f = 1\text{ MHz}$	$C_T$	-	236 48.8	- -	pF

### Forward voltage $V_F = f(T_A)$

for  $t_p = 10\text{ms}$  and  $100\text{ms}$ , Duty cycle  $< 1/100$

