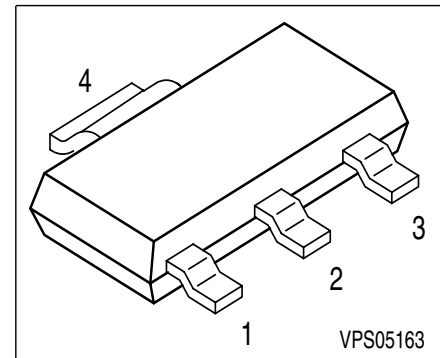


Silicon Schottky Diodes

- 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	Pin Configuration			Package	
BAT 70-05	BAT 70-05	1=A1	2=C1/C3	3=A2	4=C1/C3	SOT-223

Maximum Ratings

Parameter	Symbol	Value	Unit
Reverse voltage, $T_S < 75^\circ\text{C}$ 1)	V_R	50	V
Reverse voltage, $T_S < 50^\circ\text{C}$ 1)	V_R	70	
Peak reverse voltage, $T_S < 70^\circ\text{C}$, $t < 10\text{ms}$ 2)	V_{RM}	70	
Forward current	I_F	1.5	A
Average forward current (50/60Hz, sinus)	I_{FAV}	1.5	
Surge forward current ($t < 10\text{ms}$)	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 1)	R_{thJA}	≤ 82	K/W
Junction - soldering point	R_{thJS}	≤ 12	

1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 6cm² Cu

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

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current $V_R = 50\text{ V}$ $V_R = 70\text{ V}$	I_R	-	10 60	100 1000	μA
Reverse current $V_R = 50\text{ V}, T_A = 75\text{ }^\circ\text{C}$	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
AC characteristics					
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 100ms , Duty cycle $< 1/100$
