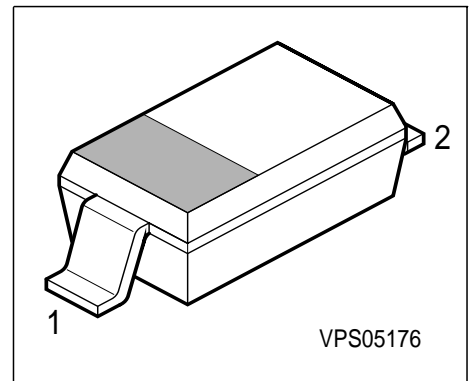


### Silicon Schottky Diode

#### Preliminary data

- Low-power Schottky rectifier diode
- Miniature plastic package for surface mounting (SMD)



**ESD:** Electrostatic discharge sensitive device, observe handling precaution!

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

#### Maximum Ratings

Parameter	Symbol	Value	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 ( $t < 100\mu s$ )	$I_{FSM}$	2.5	A
Total power dissipation, $T_S = 66\text{ °C}$	$P_{tot}$	600	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	- 65 ...+150	

#### Maximum Ratings

Junction - ambient <sup>1)</sup>	$R_{thJA}$	$\leq 275$	K/W
Junction - soldering point	$R_{thJS}$	$\leq 140$	

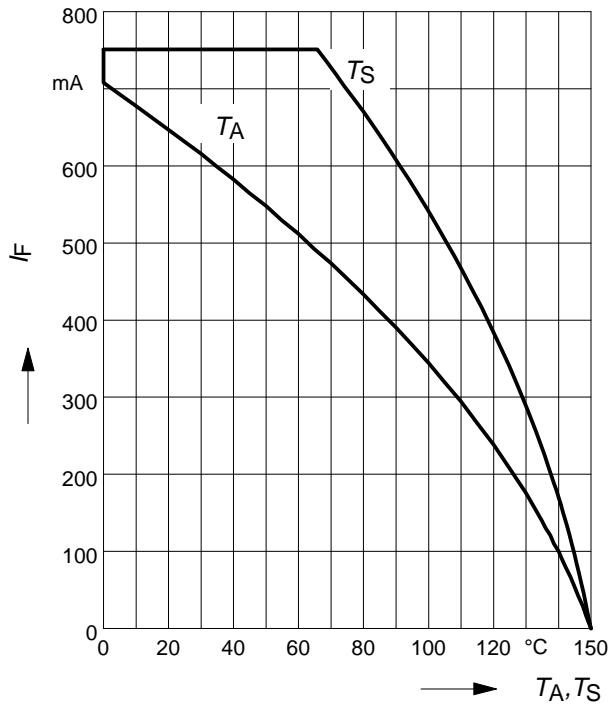
1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 0.5cm<sup>2</sup> Cu

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

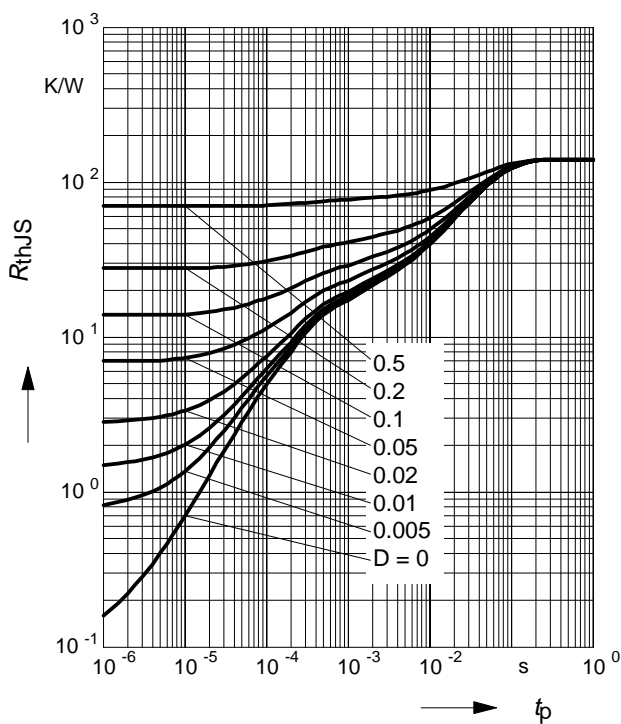
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC characteristics</b>					
Reverse current $V_R = 30\text{ V}$	$I_R$	-	-	50	$\mu\text{A}$
Reverse current $V_R = 30\text{ V}, T_A = 65^\circ\text{C}$	$I_R$	-	-	900	nA
Forward voltage $I_F = 10\text{ mA}$ $I_F = 100\text{ mA}$ $I_F = 250\text{ mA}$ $I_F = 750\text{ mA}$	$V_F$	-	0.305 0.38 0.44 0.58	0.4 - 0.7 -	V
<b>AC characteristics</b>					
Diode capacitance $V_R = 10\text{ V}, f = 1\text{ MHz}$	$C_T$	-	8.4	12	pF

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

\* Package mounted on epoxy



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



**Permissible Pulse Load**

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

