

# BAT165WS

## SCHOTTKY BARRIER DIODE

### Features

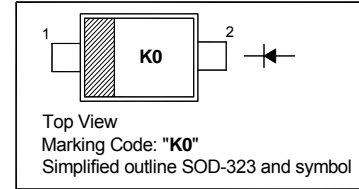
- Medium current schottky rectifier diode

### Applications

- For low-loss, fast-recovery, meter protection, bias isolation and clamping applications

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

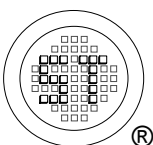


### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	40	V
Average forward current	$I_{FAV}$	500	mA
Forward Current	$I_F$	750	mA
Surge Forward Current ( $t \leq 10\text{ ms}$ )	$I_{FSM}$	2.5	A
Total Power Dissipation	$P_{tot}$	600	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$ at $I_F = 250\text{ mA}$	$V_F$	0.4 0.7	V
Reverse Current at $V_R = 30\text{ V}$ at $V_R = 30\text{ V}$ , $T_a = 65\text{ }^\circ\text{C}$	$I_R$	50 900	$\mu\text{A}$
Diode Capacitance at $V_R = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	12	pF



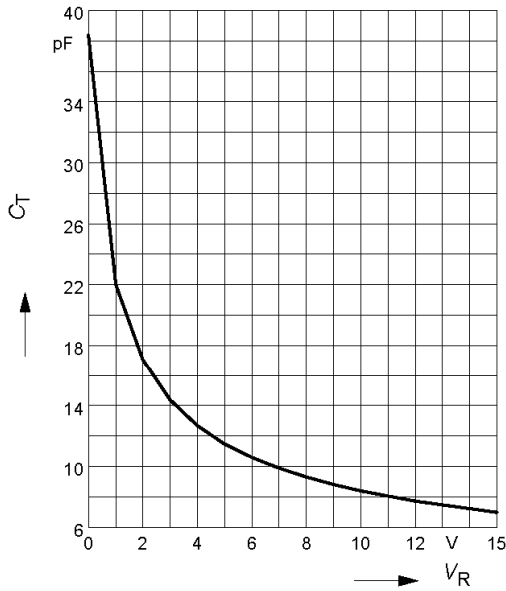
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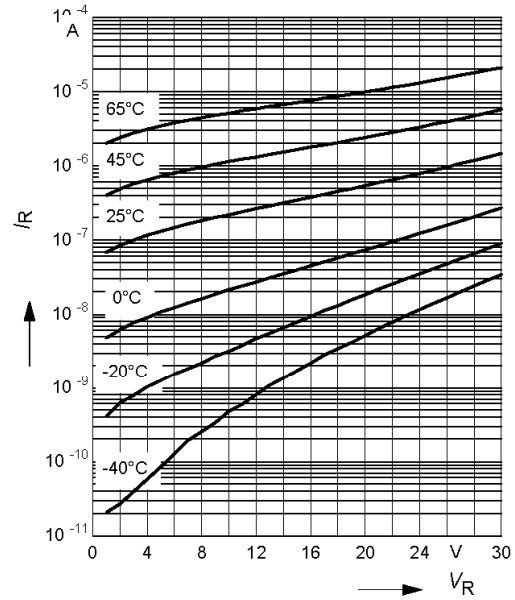
### Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



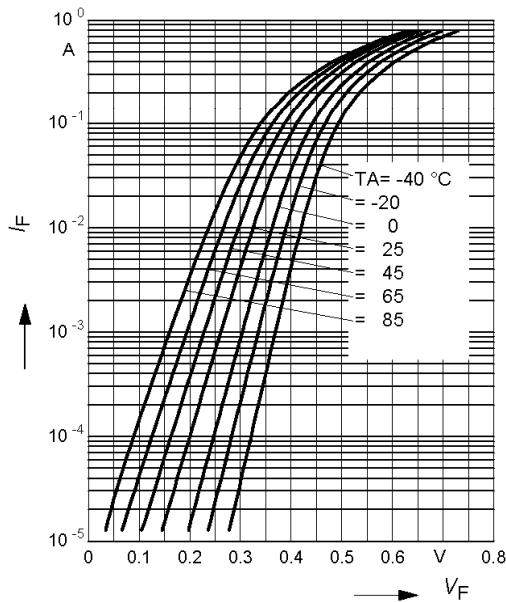
### Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$

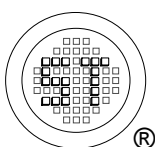
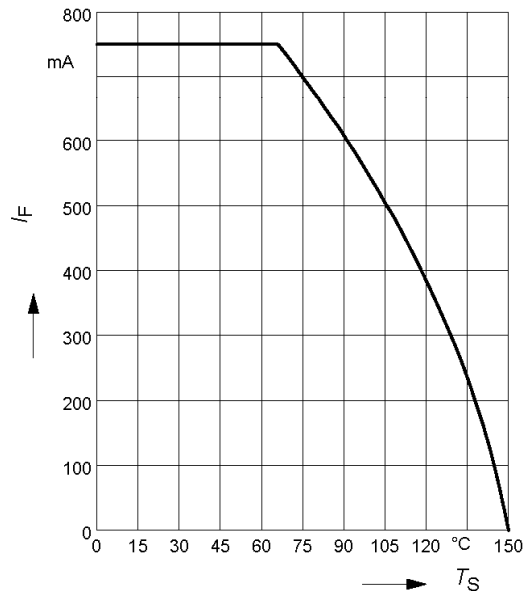


### Forward current $I_F = f(V_F)$

$T_A = \text{Parameter}$



### Forward current $I_F = f(T_S)$



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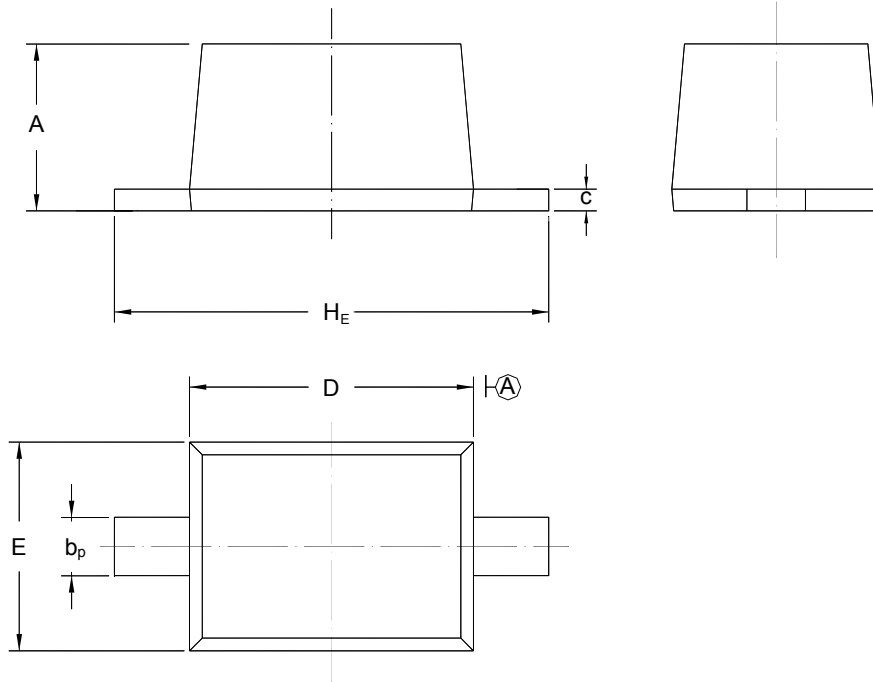


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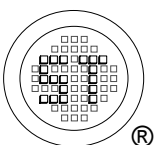
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	$b_p$	C	D	E	$H_E$
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30



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