BAT165WS

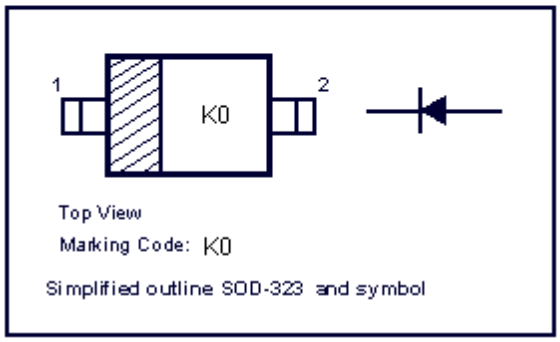
SCHOTTKY BARRIER DIODE

Features

- Medium current schottky rectifier diode
- For low-loss, fast-recovery, meter protection, bias isolation and clamping applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings (T_j = 25°C)

Parameter	Test	Symbol	Value	Unit
Reverse Voltage		V_R	40	V
Surge Forward Current	t≤10ms	I_{FSM}	2.5	A
Average forward current (50/60Hz, sinus)		I_{FAV}	500	mA
Forward Current		I_F	750	mA
Total Power Dissipation	T_s ≤66 ℃	P_{tot}	600	mW
Junction Temperature		T_J	150	℃
Storage Temperature Range		T_s	-65 … +150	℃

Maximum Thermal Resistance (T_j = 25℃)

Parameter	Symbol	Value	Unit
Junction – soldering point	R_{thJS}	140	K/W

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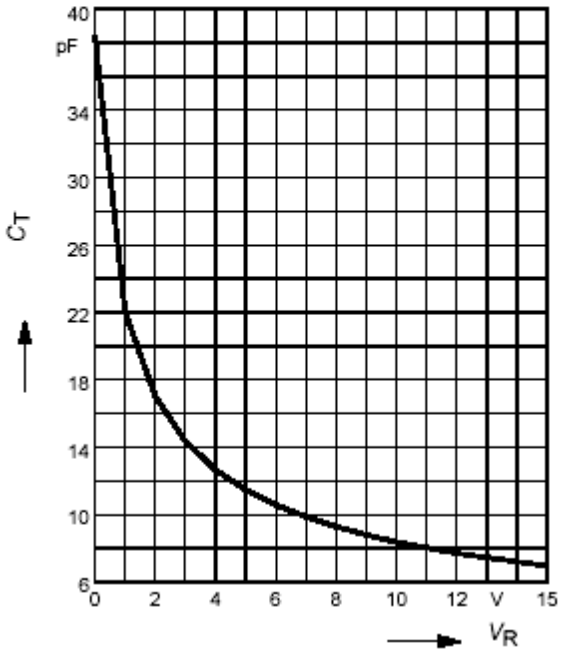
Characteristics at $T_j = 25^oC$

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward Voltage	I_F = 10mA	V_F	-	0.305	0.4	V
	I_F = 100mA	V_F	-	0.38	-	V
	I_F = 250mA	V_F	-	0.44	0.7	V
	I_F = 750mA	V_F	-	0.58	-	V
Reverse Current	V_R = 30V	I_R	-	-	50	μA
	V_R = 30V, T_A = 65℃		-	-	900	
Diode Capacitance	V_R = 10V, f = 1MH$_Z$	C_T	-	8.4	12	pF

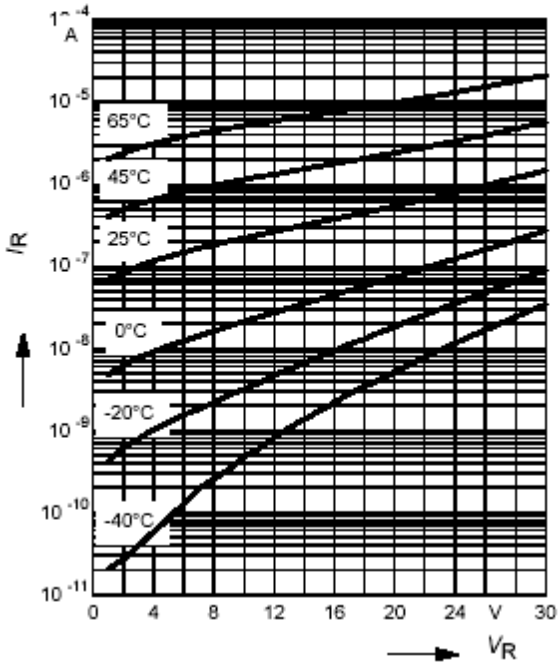
Diode capacitance $C_T = f(V_R)$

f = 1MHz



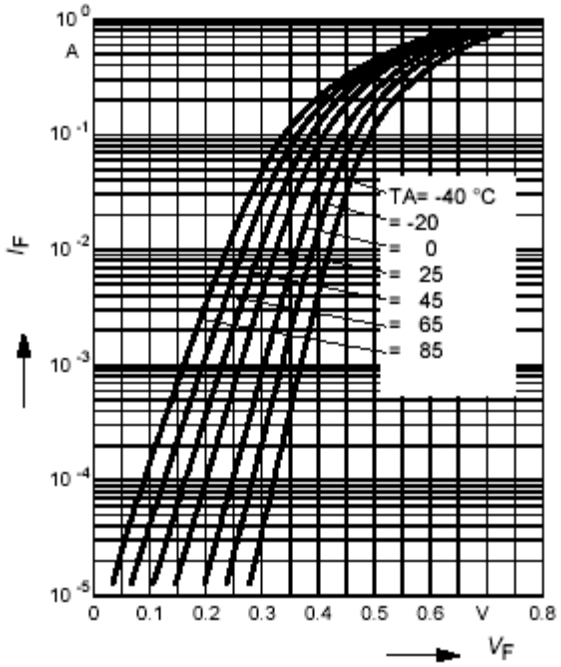
Reverse current $I_R = f(V_R)$

T_A = Parameter

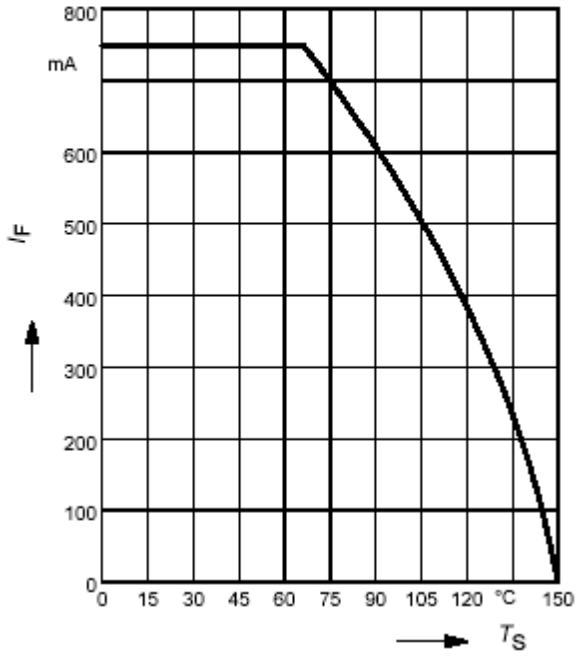


Forward current $I_F = f(V_F)$

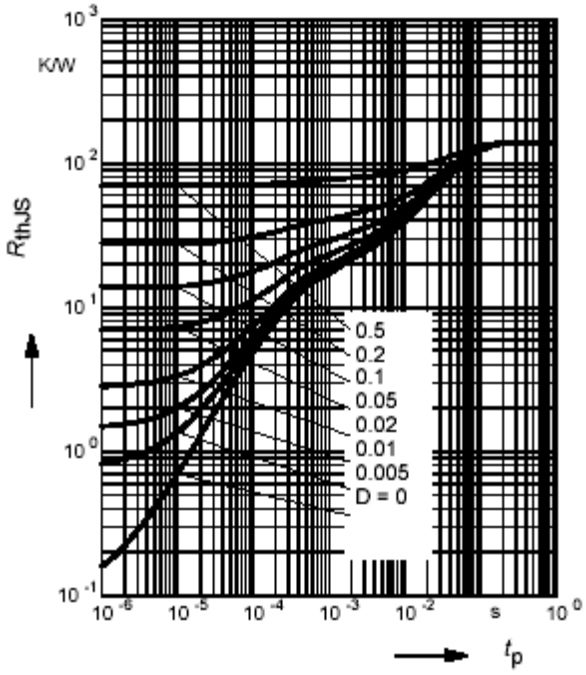
T_A = Parameter



Forward current $I_F = f(T_S)$

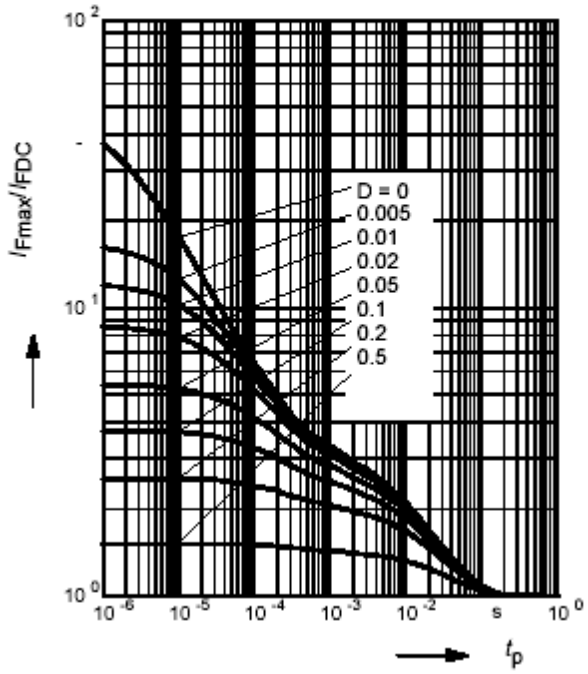


Permissible Puls Load $R_{thJS} = f(t_p)$



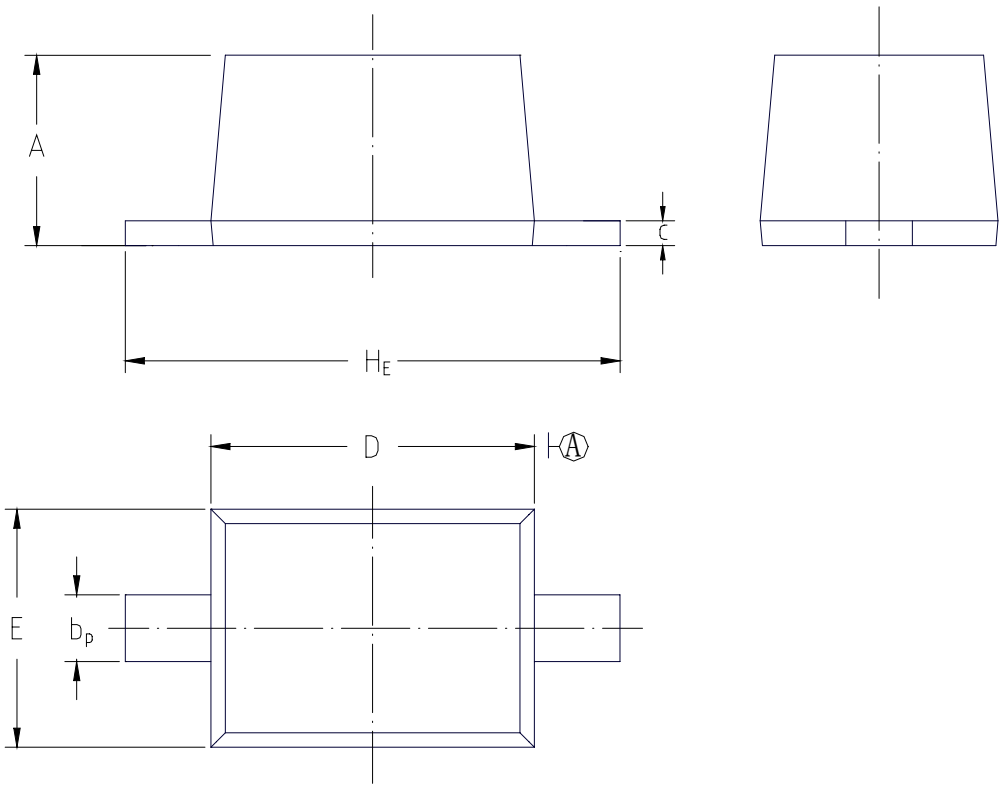
Permissible Pulse Load

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



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 0.00	1.80 1.60	1.35 1.15	2.80 2.30