

## Silicon Schottky Diode

LBAT60BT1

- High current rectifier Schottky diode with very low  $V_F$  drop (typ. 0.24 V at  $I_F = 10\text{mA}$ )
- For power supply applications
- For clamping and protection in low voltage applications
- For detection and step-up-conversion



### Maximum Ratings at $T_A = 25^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Value	Unit
Diode reverse voltage	$V_R$	10	V
Forward current	$I_F$	3	A
Surge forward current, ( $t < 10\text{ms}$ )	$I_{FSM}$	5	
Total power dissipation $T_S < 28^\circ\text{C}$	$P_{TOT}$	1350	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55–150	

### Driver Marking

LBAT60BT1=5

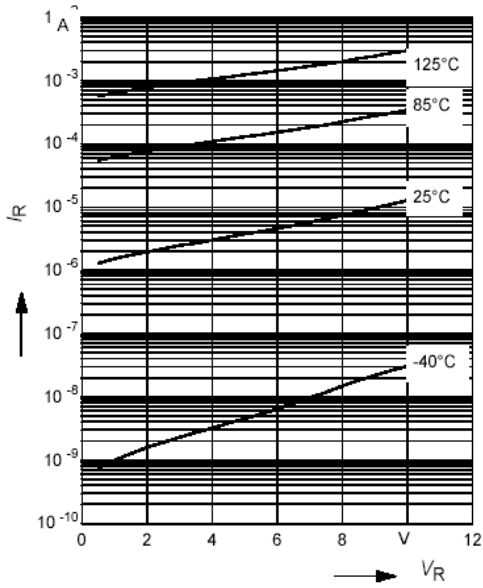
### Electrical Characteristics at $T_A = 25^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC Characteristics</b>					
Reverse current	IR				$\mu\text{A}$
$V_R = 5\text{ V}$		–	5	15	
$V_R = 8\text{ V}$		–	10	25	
$V_R = 5\text{ V}, T_A = 80^\circ\text{C}$		–	100	800	
$V_R = 8\text{ V}, T_A = 80^\circ\text{C}$		–	410	1500	
Forward voltage	VF				V
$I_F = 10\text{ mA}$		0.2	0.24	0.3	
$I_F = 100\text{ mA}$		0.26	0.32	0.38	
$I_F = 500\text{ mA}$		0.32	0.4	0.5	
$I_F = 1000\text{ mA}$		0.36	0.48	0.6	
<b>AC Characteristics</b>					
Diode capacitance $V_R = 5\text{ V}, f = 1\text{ MHz}$	$C_T$	12	25	30	pf

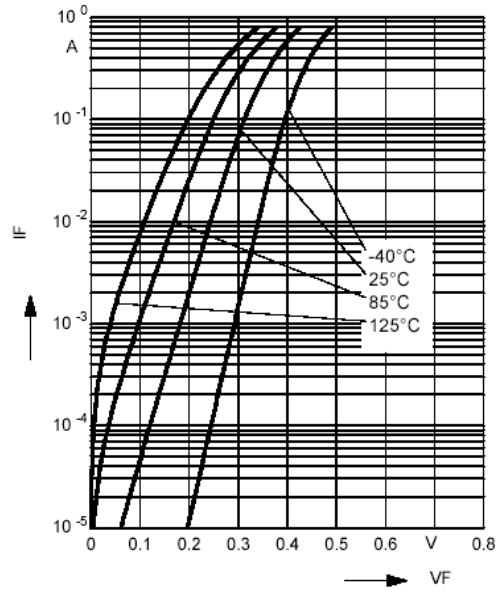
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• Electrical characteristic curves

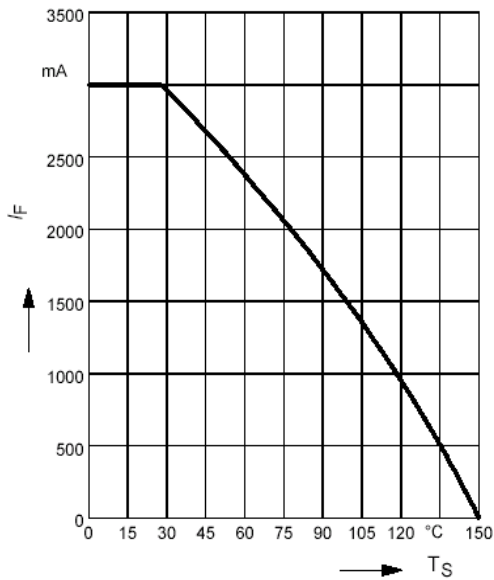
Reverse current  $I_R = f(V_R)$   
 $T_A = \text{Parameter}$



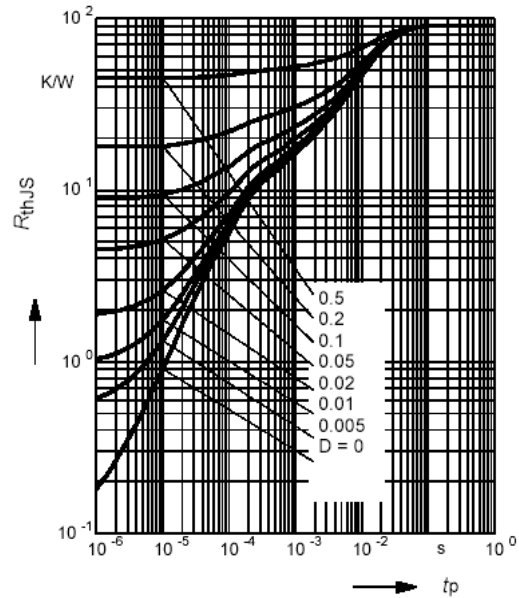
Forward current  $I_F = f(V_F)$   
 $T_A = \text{Parameter}$



Forward current  $I_F = f(T_S)$

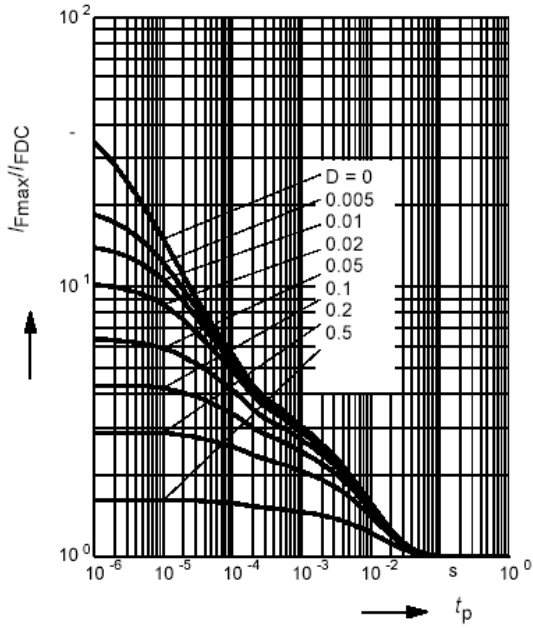


Permissible Puls Load  $R_{thJS} = f(t_p)$



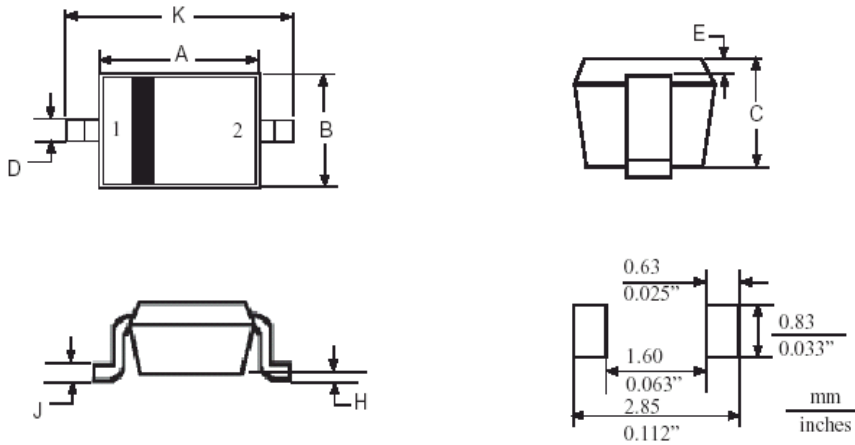
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Permissible Pulse Load  
 $I_{Fmax}/I_{FDC} = f(t_p)$



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SOD-323



NOTES:

1. CONTROLLING DIMENSION MILLIMETERS
2. LEAD THICKNESS SPECIFIED PER IEC DRAWING WITH SOLDER PLATING

DIN	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.80	0.063	0.071
B	1.15	1.35	0.045	0.053
C	0.80	1.00	0.031	0.039
D	0.25	0.40	0.010	0.016
E	0.15 REF		0.006 REF	
H	0.00	0.10	0.0000	0.004
J	0.089	0.177	0.0035	0.0070
K	2.30	2.7	0.091	0.106