

1. Part information

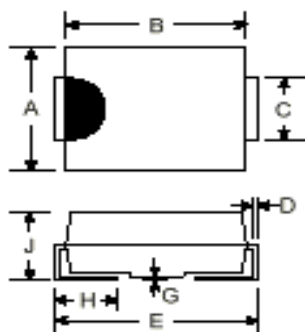
Part Number:	B140BT-01	Issue date:	6/7/99
Description:	Special I_{FSM} , V_F , I_R , E_{AS} , I_{AR} , C_j , Dim. A, H	Series No.:	1229
Outline:	SMB	Cust. code.:	P746A
Marking:	Cathode band + LT logo + D/C + B140B	Cust. dwg#:	371S0054
Package:	Tape/Reel	Rev. Level:	B

2. Electrical characteristics

Specifications at 25°C ambient temperature unless otherwise specified.

Parameter		Test Condition	Min.	Max.	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}		40		V
Maximum RMS Voltage	V_{RSM}		28		V
Maximum DC Blocking Voltage	V_{DC}		40		V
Maximum Average Forward Rectified Current	$I_{(AV)}$	$T_T=110^\circ\text{C}$ 5 mm ² copper land areas	1.0		A
Peak Forward Surge Current	I_{FSM}	8.3ms Single Half Sine-wave Superimposed on Rated Load	45		A
Non-Repetitive Avalanche Energy	E_{AS}	$T_J=25^\circ\text{C}$, $I_{AS}=1.0\text{A}$, $L=190\text{mH}$	18		mJ
Repetitive Avalanche Current	I_{AR}	Current decaying linearly to Zero in 1 μs , $f=100\text{kHz}$, $V_A=60\text{V}$	0.2		A
Instantaneous Forward Voltage	V_F	$I_F=1.0\text{A}$ $I_F=2.0\text{A}$		0.53 0.70	V V
DC Reverse Current	I_R	$V_R=40\text{V}$ @ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$		0.020 4.0	mA mA
Typical Thermal Resistance	$R_{\theta JL}$	Junction to terminal	20		°C/W
Junction Capacitance	C_j	$V_R=4.0\text{V}$ / 1MHz	80		PF
Operating Temperature Range	T_J		-65 to +150		°C
Storage Temperature Range	T_{STG}		-65 to +150		°C

3. Mechanical Outline



SMB		
Dim	Min	Max
A	3.30	3.80
B	4.06	4.57
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.89	1.52
J	2.00	2.62
All Dimensions in mm		