Littelfuse
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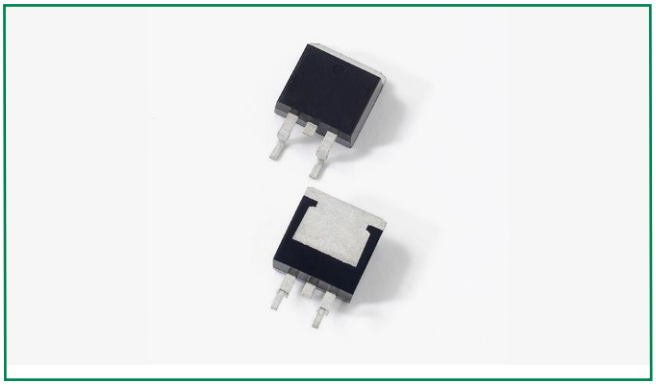
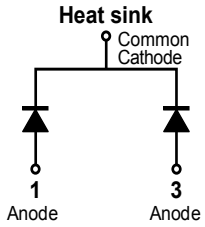
Schottky Barrier Rectifier
DSTB30200C, 2x15A, 200V, TO-263, Common Cathode

DSTB30200C

RoHS



Pin out



Description

Littelfuse DST series Ultra Low V_F Schottky Barrier Rectifier is designed to meet the general requirements of commercial and industry applications by providing high temperature, low leakage and low V_F products.

It is suitable for high frequency switching mode power supply applications, as free-wheeling and polarity protection diodes.

Features

- Ultra low forward voltage drop
- High frequency operation
- High junction temperature capability
- Guard ring for enhanced ruggedness and long term reliability
- Common cathode configuration in TO-263 package

Applications

- Switching mode power supply
- DC/DC converters
- Free-Wheeling diodes
- Polarity Protection Diodes

Maximum Ratings

Parameters	Symbol	Test Conditions	Max	Unit
Peak Inverse Voltage	V_{RWM}	-	200	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_C =100°C rectangular wave form	15 (per leg) 30 (total device)	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	200	A

Electrical Characteristics

Parameters	Symbol	Test Conditions	Type	Max	Units
Forward Voltage Drop (per leg)*	V_{F1}	@15A, Pulse, T_J = 25 °C	0.81	1.10	V
	V_{F2}	@15A, Pulse, T_J = 125 °C	0.68	0.72	V
Reverse Current (per leg)*	I_{R1}	@V_R = rated V_R T_J = 25 °C	0.0005	0.16	mA
	I_{R2}	@V_R = rated V_R T_J = 125 °C	1	12	mA
Junction Capacitance	C_T	@V_R = 5V, T_C =25 °C F_{SIG} = 1MHz	300	-	pF

* Pulse Width < 300µs, Duty Cycle <2%

Revised:06/25/18

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Thermal-Mechanical Specifications

Parameters	Symbol	Test Conditions	Max	Unit
Junction Temperature	T_J		-55 to +150	°C
Storage Temperature	T_{stg}		-55 to +150	°C
Typical Thermal Resistance Junction to Case(per leg)	$R_{\theta JC}$	DC operation	2.0	°C/W
Approximate Weight	wt		1.85	g
Case Style		D^2PAK (TO-263)		

Figure 1: Typical Forward Characteristics

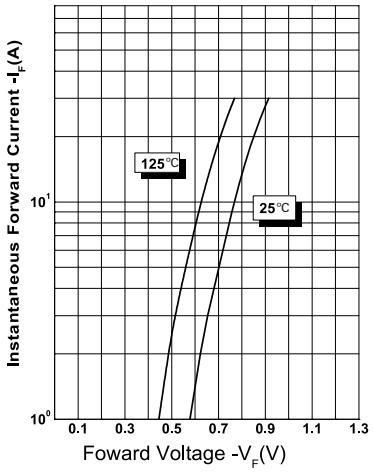


Figure 2: Typical Reverse Characteristics

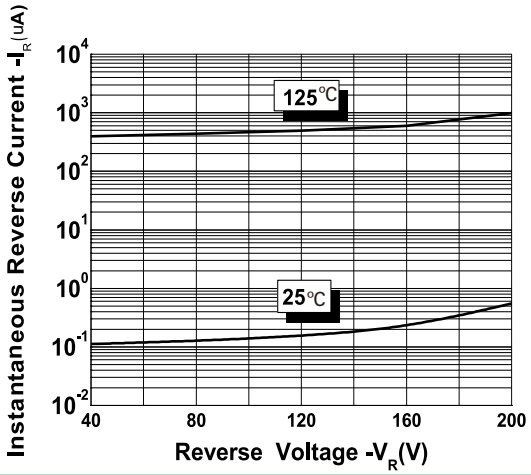
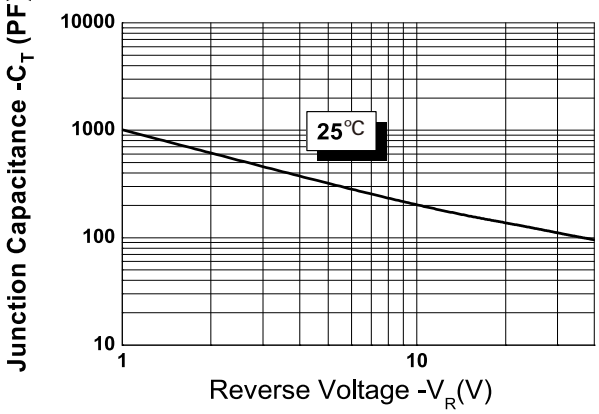


Figure 3: Typical Junction Capacitance



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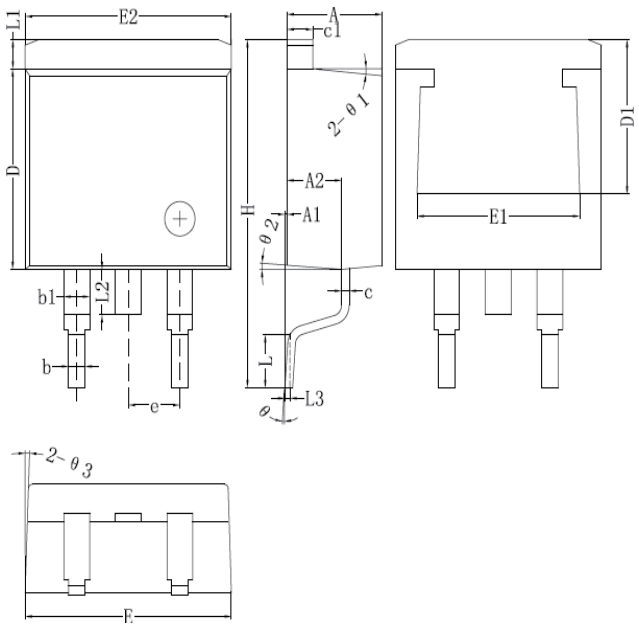
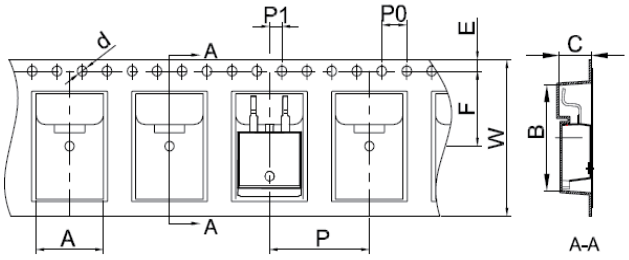
Dimensions-D²PAK(TO-263)



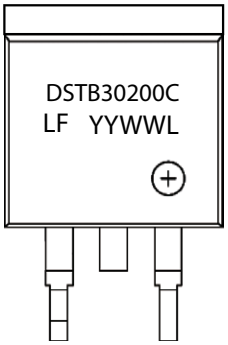
Symbol	Dimensions in Millimeters		
	Min	Typical	Max
A	4.55	4.70	4.85
A1	0	0.10	0.25
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1	-	1.27	-
c	0.36	0.38	0.61
c1	1.17	1.27	1.37
D	8.55	8.70	8.85
D1	6.40	-	-
E	10.01	10.16	10.31
E1	7.6	-	-
E2	9.98	10.08	10.18
e	-	2.54	-
H	14.6	15.1	15.6
L	2.00	2.30	2.70
L1	1.17	1.27	1.40
L2	-	-	2.20
L3	-	0.25BSC	-
e3	-	4°	-

Carrier Tape & Reel Specification



Symbol	Millimeters	
	Min	Max
A	10.70	10.90
B	16.03	16.23
C	5.11	5.31
d	ø1.45	ø1.65
E	1.65	1.85
F	11.40	11.60
P0	3.90	4.10
P	15.90	16.10
P1	1.90	2.10
W	23.90	24.30

Part Numbering and Marking System



DST = Componant Type
B = Package Type
30 = Forward Current (30A)
200 = Reverse Voltage (200V)
C = Configuration
LF = Littelfuse
YY = Year
WW = Week
L = Lot Number

Packing Options

Part Number	Marking	Packing Mode	M.O.Q
DSTB30200C	DSTB30200C	800pcs / reel	800

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