Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

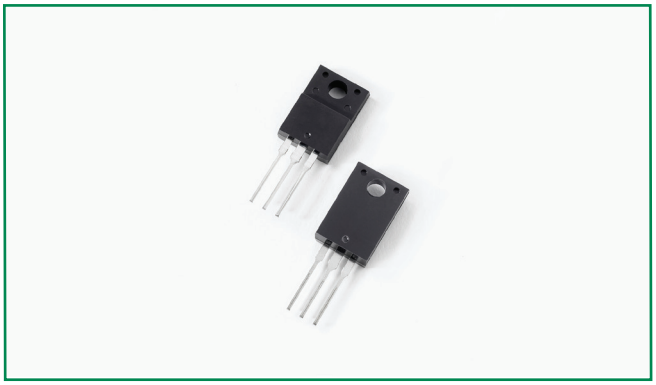
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Littelfuse
Expertise Applied | Answers Delivered

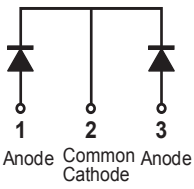
Schottky Barrier Rectifier
DSTF40100C, 2x20A, 100V, ITO-220AB, Common Cathode

DSTF40100C

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 lower V_F products.

It is suitable for high frequency switching mode power supply, free-wheeling diodes 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 ITO-220AB 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}	-	100	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_C =85°C rectangular wave form	20 (per leg) 40 (total device)	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	300	A

Electrical Characteristics

Parameters	Symbol	Test Conditions	Typ	Max	Unit
Forward Voltage Drop (per leg) *	V_{F1}	@5A, Pulse, T_J = 25 °C	0.47	-	V
		@10A, Pulse, T_J = 25 °C	0.54	-	
		@20A, Pulse, T_J = 25 °C	0.68	0.75	
	V_{F2}	@5A, Pulse, T_J = 125 °C	0.38	-	
		@10A, Pulse, T_J = 125 °C	0.51	-	
		@20A, Pulse, T_J = 125 °C	0.64	0.70	
Reverse Current (per leg) *	I_{R1}	@V_R = 70V, T_J = 25 °C	0.012	-	mA
		@V_R = 100V, T_J = 25 °C	0.030	1	
	I_{R2}	@V_R = 70V, T_J = 125 °C	10	-	
		@V_R = 100V, T_J = 125 °C	15	75	
Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25 °C, $_{fSI}$G = 1MHz	845	-	pF
RSM Isolation Voltage (t = 1.0 second, R. H. < =30%, T_A = 25 °C)	V_{ISO}	Clip mounting, the epoxy body away from the heatsink edge by more than 0.110" along the lead direction.	-	4500	V
		Clip mounting, the epoxy body is inside the heatsink.	-	3500	
		Screw mounting, the epoxy body is inside the heatsink.	-	1500	

* Pulse Width < 300μs, Duty Cycle <2%

Revised:02/03/16

Schottky Barrier Rectifier
DSTF40100C, 2x20A, 100V, ITO-220AB, Common Cathode

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
Thermal Resistance Junction to Case (per leg)	R_{thJC}	DC operation	4.0	°C/W
Approximate Weight	wt		2	g
Case Style	ITO-220AB			

Figure 1: Typical Forward Characteristics

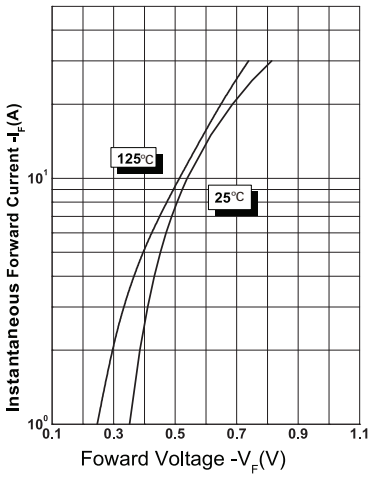


Figure 2: Typical Reverse Characteristics

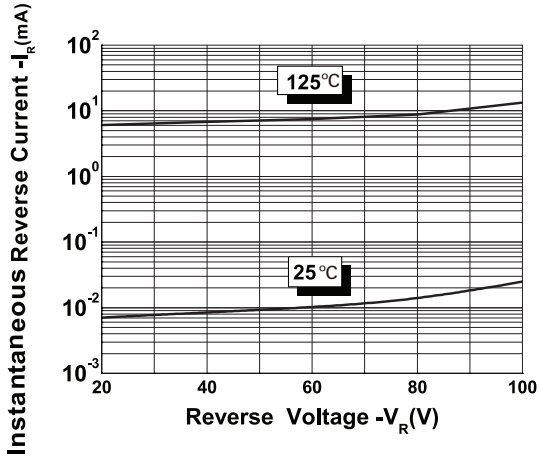
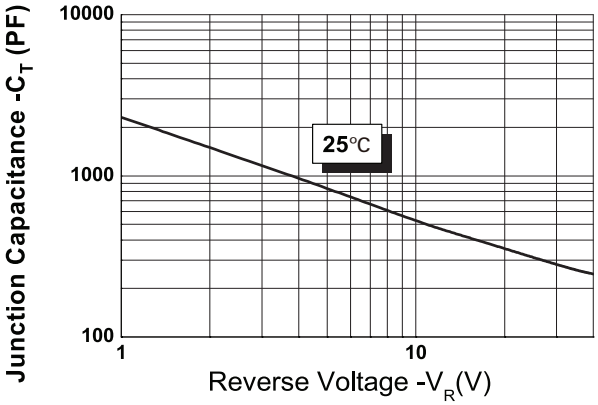


Figure 3: Typical Junction Capacitance

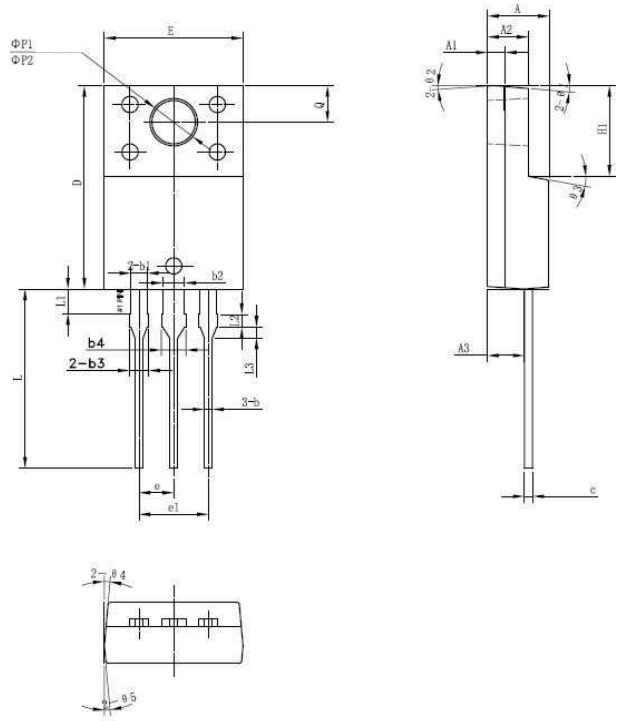


Revised:02/03/16

Littelfuse
Expertise Applied | Answers Delivered

Schottky Barrier Rectifier
DSTF40100C, 2x20A, 100V, ITO-220AB, Common Cathode

Dimensions- ITO-220AB

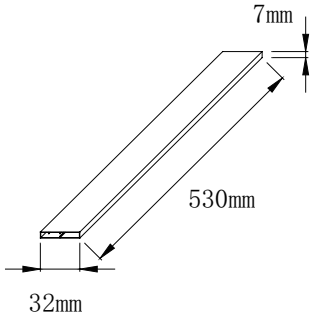


Symbol	Millimeters		
	Min	Typ	Max
A	4.30	4.50	4.70
A1	1.10	1.30	1.50
A2	2.80	3.00	3.20
A3	2.50	2.70	2.90
b	0.50	0.60	0.75
b1	1.10	1.20	1.35
b2	1.50	1.60	1.75
b3	1.20	1.30	1.45
b4	1.60	1.70	1.85
c	0.55	0.60	0.75
D	14.80	15.00	15.20
E	9.96	10.16	10.36
e		2.55	
e1		5.10	
H1	6.50	6.70	6.90
L	12.70	13.20	13.70
L1	1.60	1.80	2.00
L2	0.80	1.00	1.20
L3	0.60	0.80	1.00
ØP1	3.30	3.50	3.70
ØP2	2.99	3.19	3.39
Q	2.50	2.70	2.90
θ1		5°	
θ2		4°	
θ3		10°	
θ4		5°	
θ5		5°	

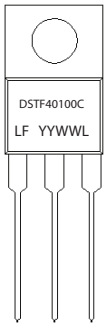
Packing Options

Part Number	Marking	Packing Mode	M.O.Q
DSTF40100C	DSTF40100C	50pcs / Tube	1000

Tube Specification



Part Numbering and Marking System



DST = Device Type
F = Package type
40 = Forward Current (40A)
100 = Reverse Voltage (100V)
C = Configuration
LF = Littelfuse
YY = Year
WW = Week
L = Lot Number

Revised:02/03/16