LV15S50E

Rev.F Oct.-2018

蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

/ Descriptions

Schottky Barrier Diode in a TO-277 Plastic Package.

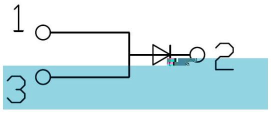
/ Features

Low forward voltage drop,low power losses,High efficiency operation.HF Product.

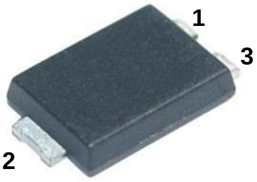
/ Applications

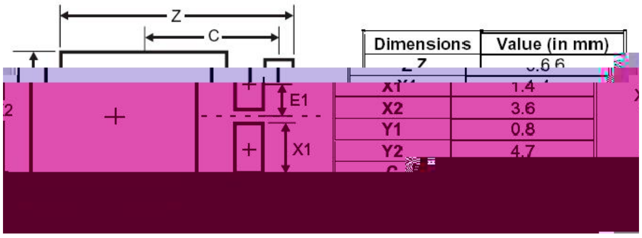
For use in high frequency inverters, switching power supplies, freewheeling diodes, OR-ing diode, dc-to-dc converters and reverse battery protection.

/ Equivalent Circuit



/ Pinning





Dimensions	Value (in mm)
Z	[illegible]
X1	1.4
X2	3.6
Y1	0.8
Y2	4.7

PIN1 Anode PIN 2 Cathode PIN 3 Anode

Suggested Pad layout

/ h_{FE} Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RM} V_{RSM} V_{DC}	50	V
RMS Voltage	V_{RMS}	35	V
Average Rectified Forward Current	$I_{F(AV)}$	1×15	A
Non Repetitive Peak Surge Current	I_{FSM}	280	A
Thermal Resistance Junction to Case Note 1	$R_{\theta JC}$	73	/W
Junction and Storage Temperature Range	T_j T_{stg}	-40 +150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	V_{BR}	I_R=1mA(Ta=25)	50			V
Forward Voltage	V_F	I_F =3A(Ta=25)		0.33	0.42	V
		I_F =3A(Ta=125)		0.22	0.28	V
		I_F =15A(Ta=25)		0.45	0.47	V
		I_F =15A(Ta=125)		0.40	0.45	V
Instantaneous Reverse Current	I_R Note 2	V_R=50V(Ta=25)		80	150	μA
		V_R=50V(Ta=100)			30	mA
		V_R=50V(Ta=125)			50	mA

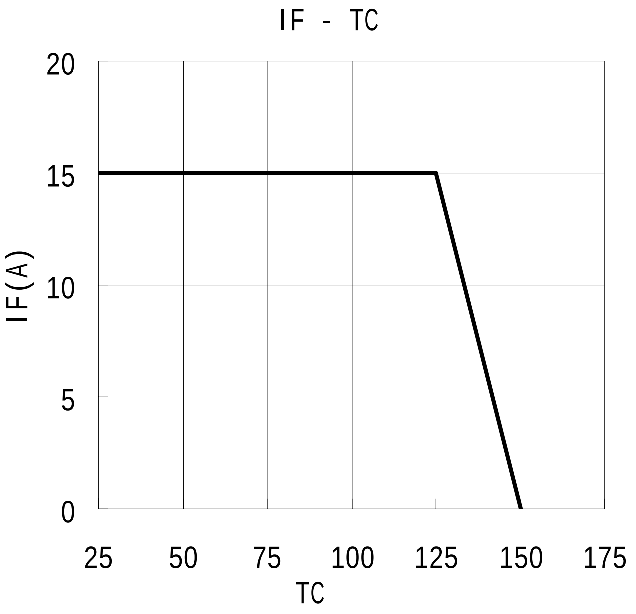
Notes

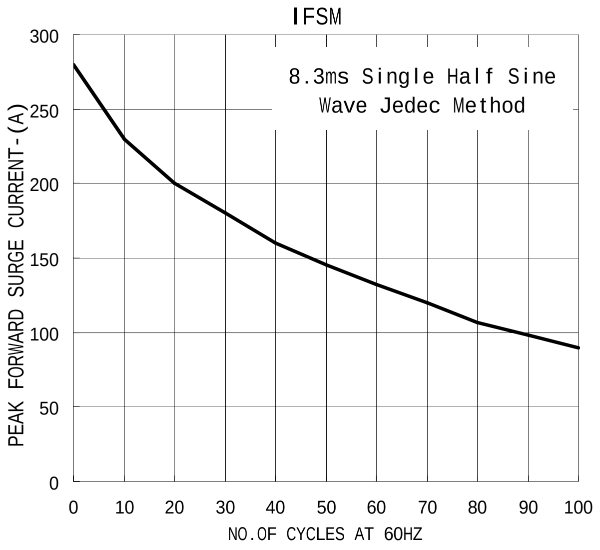
FR-4 PCB, 2oz. Copper, minimum recommended pad layout per.

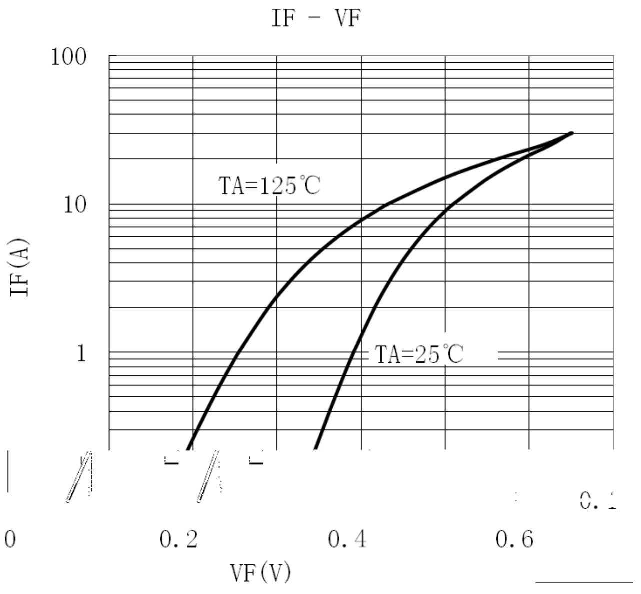
Short duration pulse test used to minimize self-heating effect.

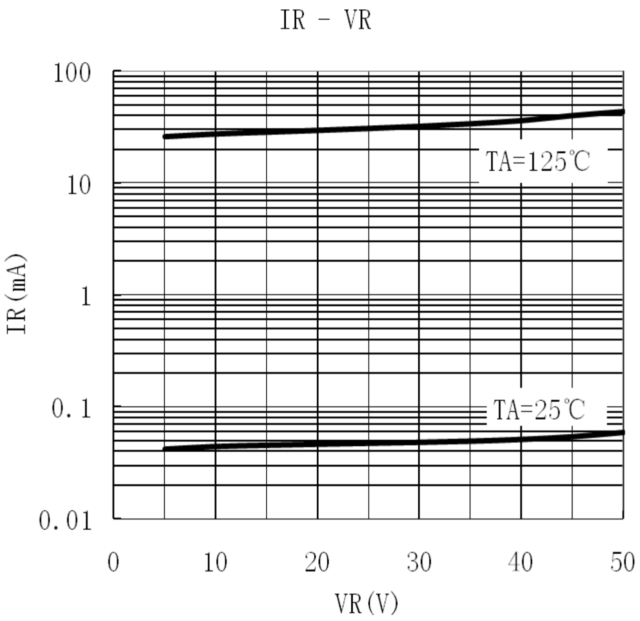
Unless otherwise noted, values for the parameters of a single chip

/ Electrical Characteristic Curve

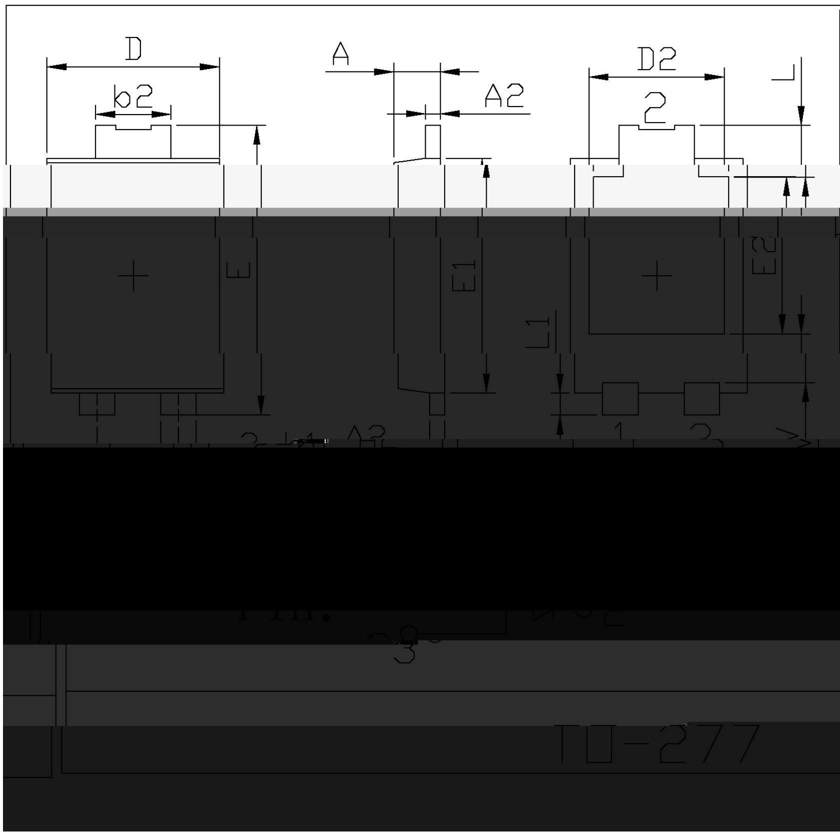








/ Package Dimensions



[redacted]

UNIT:MM

Dim	Min	Max
A	1.05	1.25
A2	0.33	0.43
b1	0.80	0.99
b2	1.70	1.88
D	3.90	4.05
D2	3.054Typ	
E	6.40	6.60
e	1.84Typ	
[redacted]	[redacted]	[redacted]
L1	0.45	0.65
W	1.10	1.41

/ Marking Instructions

Note:

	Product Type.
****:	Lot No. Code, code change with Lot No.

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)

[redacted]

1 150 180 60 90sec;
2 245 5 5 0.5sec;
3 2 10 /sec.

Note:
1.Preheating:150~180 , Time:60~90sec.
2.Peak Temp.:245 5 , Duration:5 0.5sec.
3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260 5 10 1 sec.

Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-277	5,000	3	15,000	6	90,000	13 ×12	360×360×50	380×335×366

/ Notices