

/ Descriptions

TO-277
TO-277 Plastic package Schottky diode.

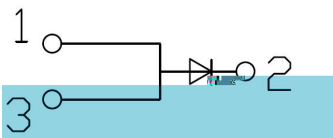
/ Features

$V_F(\text{typ})=0.2\text{V}$
High Forward Surge Capability, Ultra Low Forward Voltage Drop $V_F(\text{typ})=0.2\text{V}$, Excellent High Temperature Stability,HF Product.

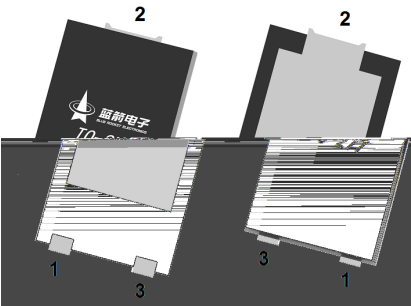
/ Applications

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

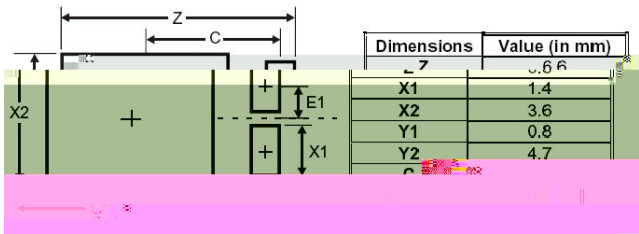
/ Equivalent Circuit



/ Pinning



PIN1 Anode PIN 2 Cathode PIN 3 Anode



Suggested Pad layout

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage Peak Reverse Voltage	V_{RRM} V_{RWM} V_{RM}	45	V
RMS Reverse voltage	$V_{R(RMS)}$	31.5	V
Average Rectified Output Current	I_O	10	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	250	A
Junction Temperature Range	$T_{J\text{ MAX}}$	150	
Storage Temperature Range	T_{stg}	-55 150	
Typical Thermal Resistance ^{Note 1}	$R_{\theta JA}$	73	/W
	$R_{\theta JC}$	3	/W

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

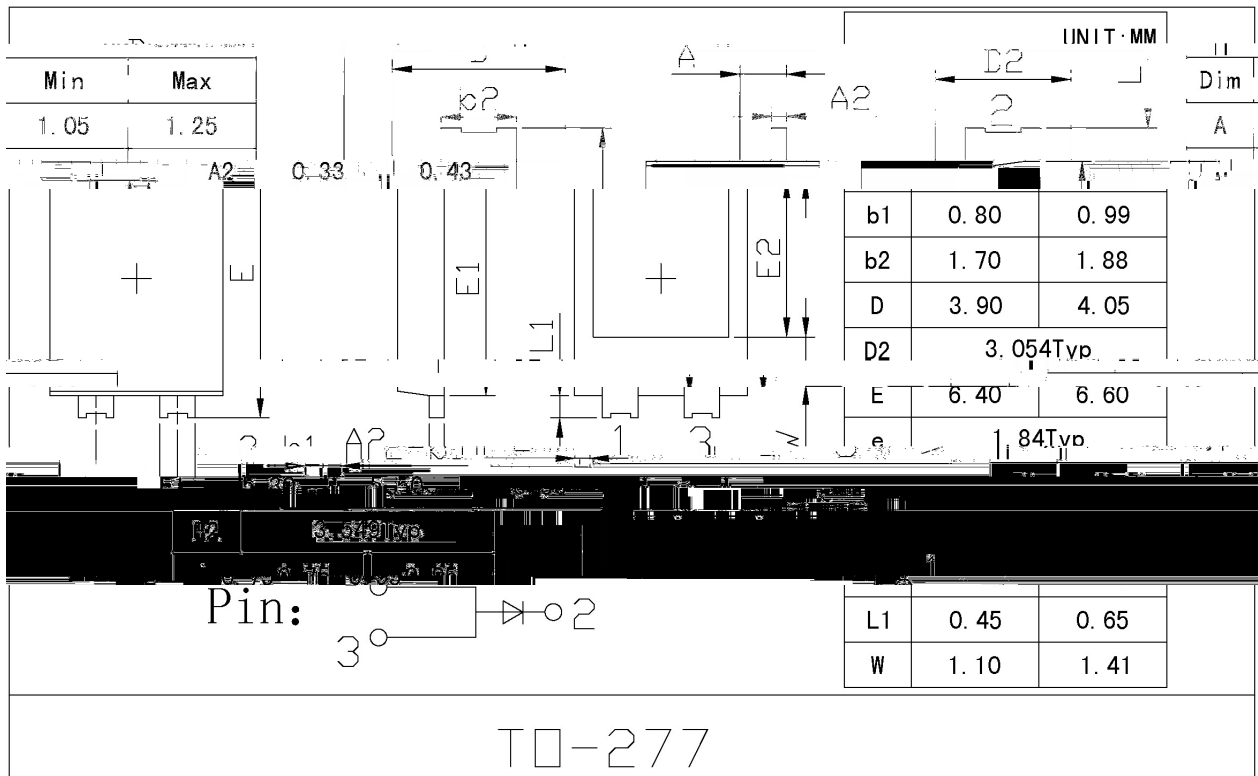
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	$I_R=0.5\text{mA}$	45			V
Forward voltage	V_F	$I_F=2\text{A}$ $T_J=25$		0.33	0.38	V
		$I_F=2\text{A}$ $T_J=125$		0.20		V
		$I_F=10\text{A}$ $T_J=25$		0.42	0.46	V
		$I_F=10\text{A}$ $T_J=125$		0.35		V
Instantaneous Reverse Current	I_R ^{Note 2}	$V_R=45\text{V}$ $T_J=25$		0.06	0.12	mA
		$V_R=45\text{V}$ $T_J=100$			12	mA
		$V_R=45\text{V}$ $T_J=125$			50	mA

Notes

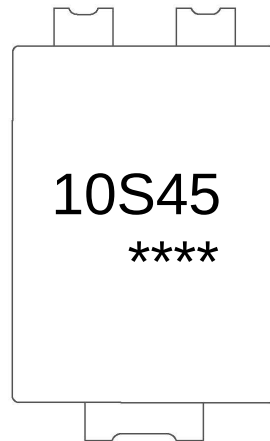
/Polymide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.

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

/ Package Dimensions



/ Marking Instructions



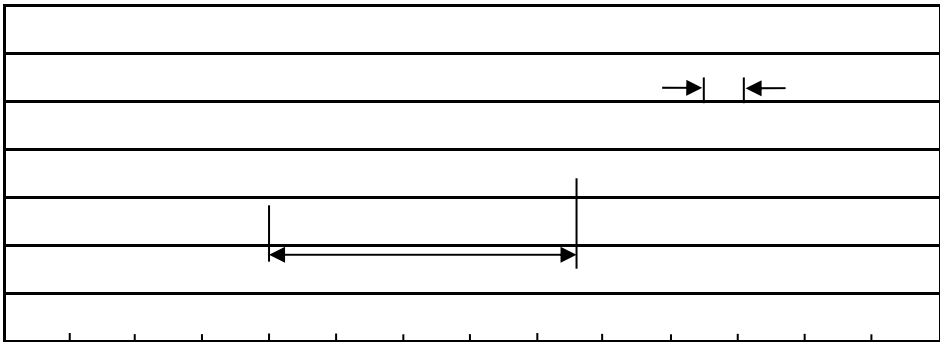
Note:

Product Type Code

****:

Lot No. Code, code change with Lot No

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



- Note:
- 1

150 180

60 90sec;

2

245 5

5 0.5sec;
- 3
- 2 10 /sec.

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	Units					Dimension (unit mm ³)		
TO-277	5,000	3	15,000	6	90,000	13 ×12	360×360×50	380×335×366

/ Notices