

Rev.I Jan.-2024

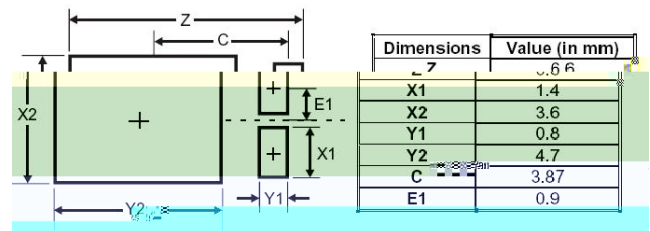
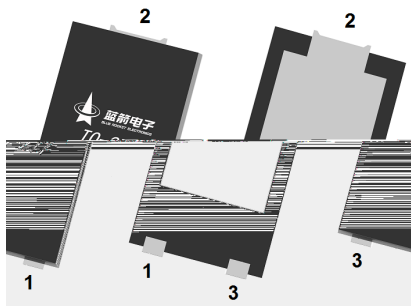
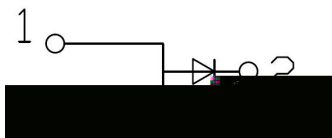
TO-277

TO-277 Plastic package Schottky diode.

$$V_F(\text{typ})=0.2\text{V}$$

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

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



PIN1 Anode

PIN 2 Cathode

PIN 3 Anode

Suggested Pad layout

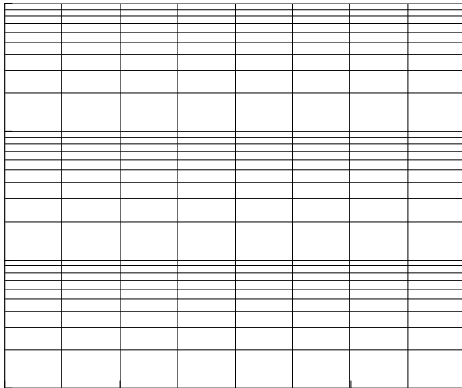
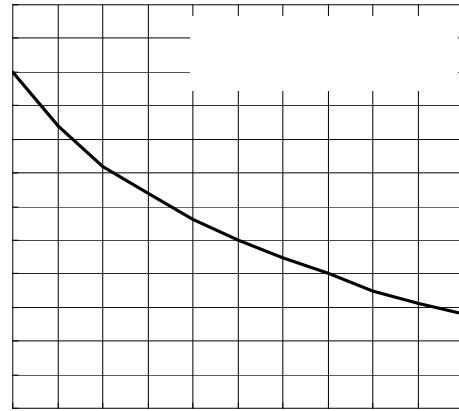
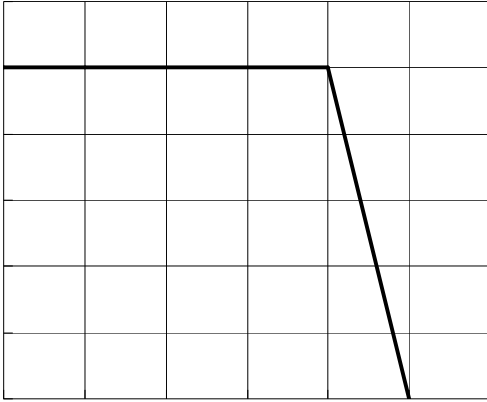
See Marking Instructions.

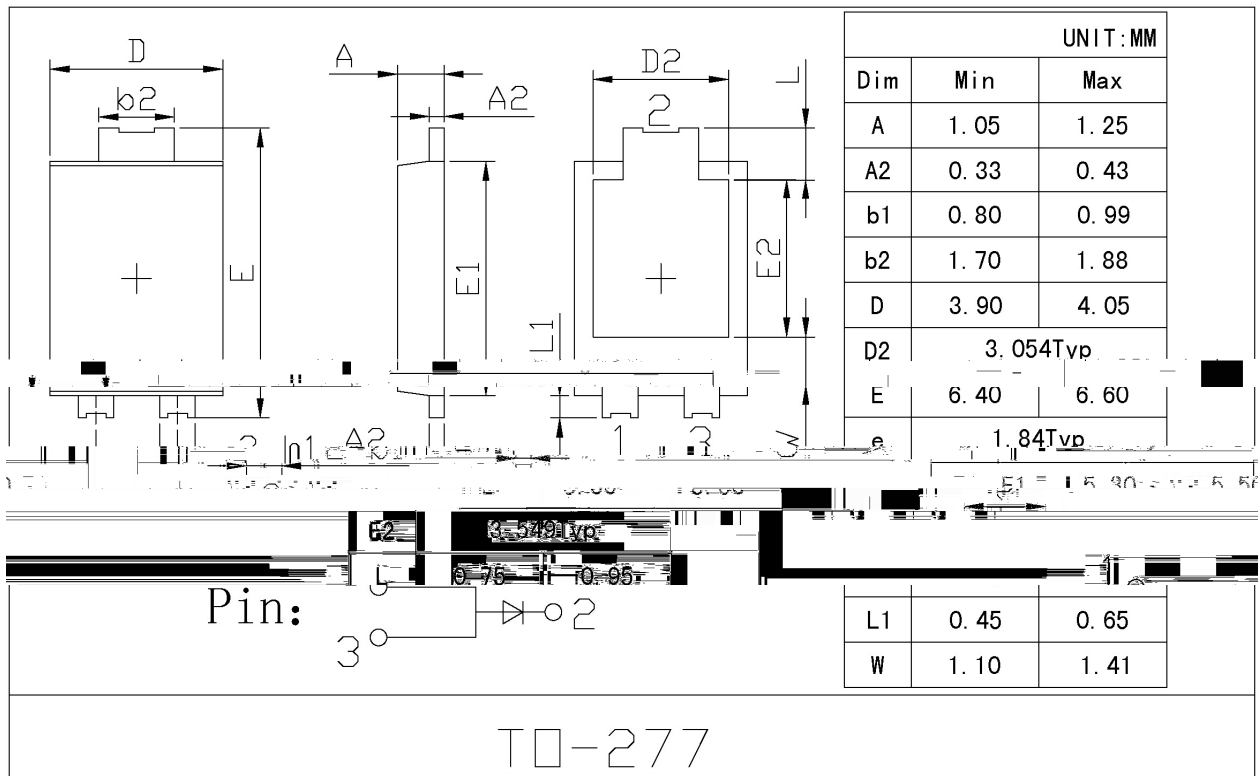
Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage Peak Reverse Voltage	V_{RRM} V_{RWM} V_{RM}	45	V
RMS Reverse voltage	$V_{R(RMS)}$	31.5	V
Average Rectified Output Current	I_O	10	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	250	A
Junction Temperature Range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

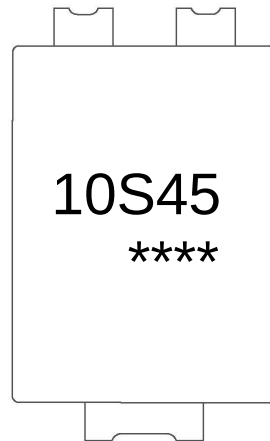
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	$I_R=0.5mA$	45			V
Forward voltage	V_F	$I_F=2A$ $T_J=25^{\circ}C$		0.33	0.38	V
		$I_F=2A$ $T_J=125^{\circ}C$		0.20		V
		$I_F=10A$ $T_J=25^{\circ}C$		0.42	0.46	V
		$I_F=10A$ $T_J=125^{\circ}C$		0.35		V
Instantaneous Reverse Current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

/Notes

- PCB 2 18.8mm x 14.4mm 5.6mm x 14.4mm
/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.







10S45

Note:

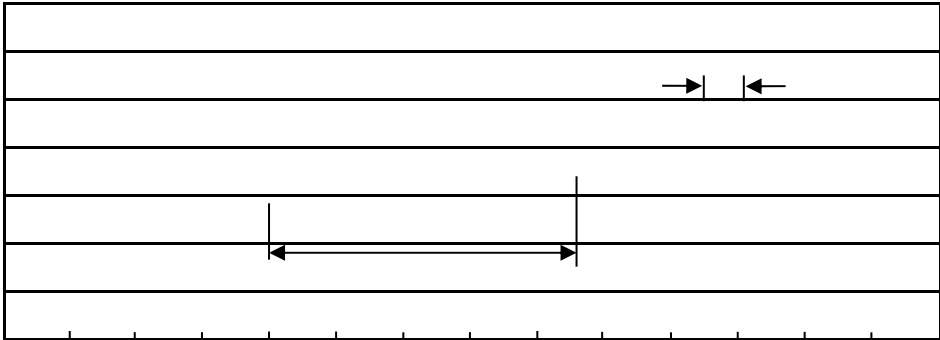
10S45

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;

1.Preheating:150~180 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 /sec.

260±5

10±1 sec.

Temp.:260±5℃

Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-277	5,000	3	15,000	6	90,000	13 ×12	360×360×50	380×335×366