

Rev.I Jan.-2024

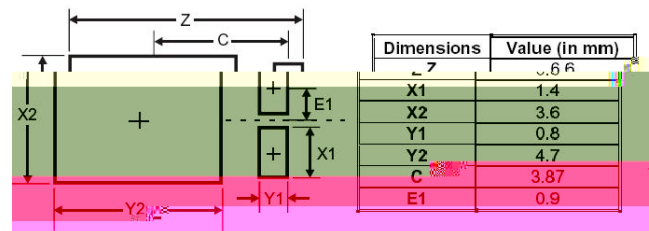
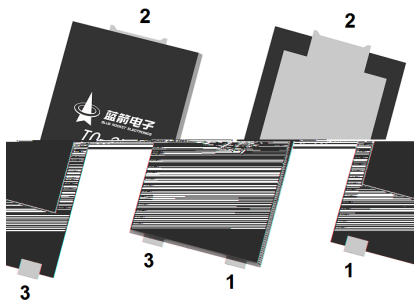
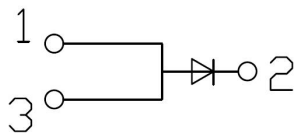
TO-277

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_{JA}	73	°C/W
	R_{JC}	3	/W

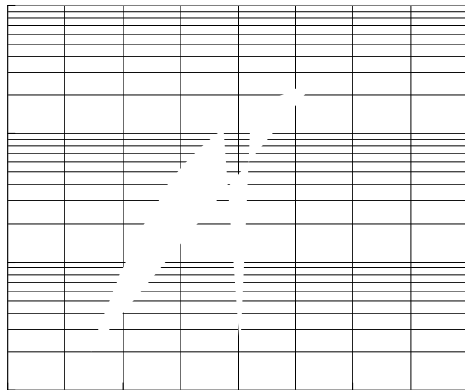
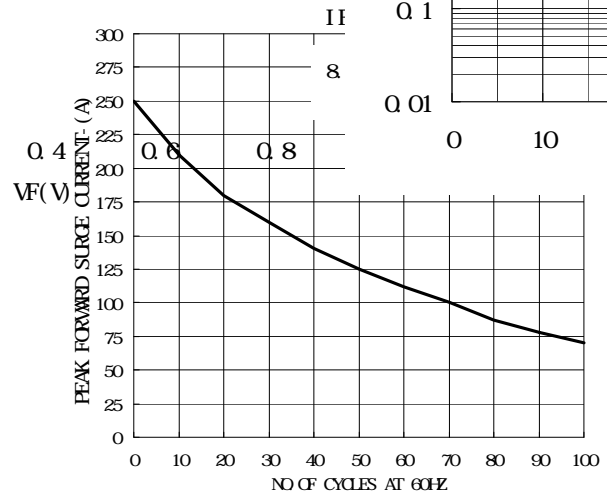
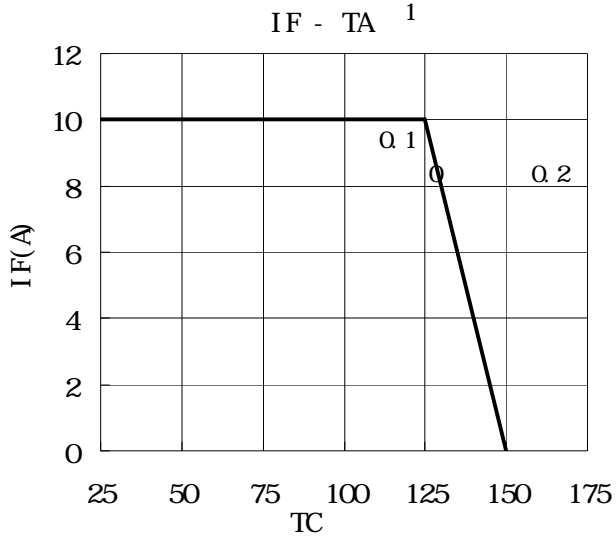
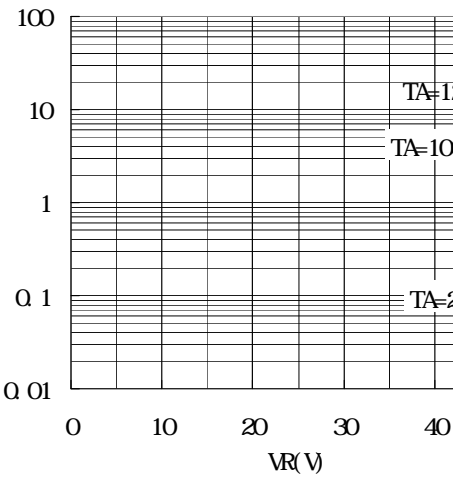
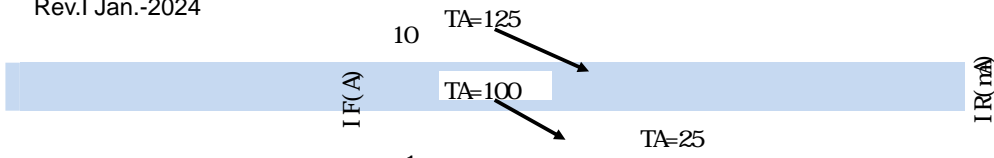
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	$I_R=0.5mA$	45			V
Forward voltage	V_F	$I_F=2A$ $T_J=25^\circ C$		0.33	0.38	V
		$I_F=2A$ $T_J=125^\circ C$		0.20		V
		$I_F=10A$ $T_J=25^\circ C$		0.42	0.46	V
		$I_F=10A$ $T_J=125^\circ C$		0.35		V
Instantaneous Reverse Current	I_R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

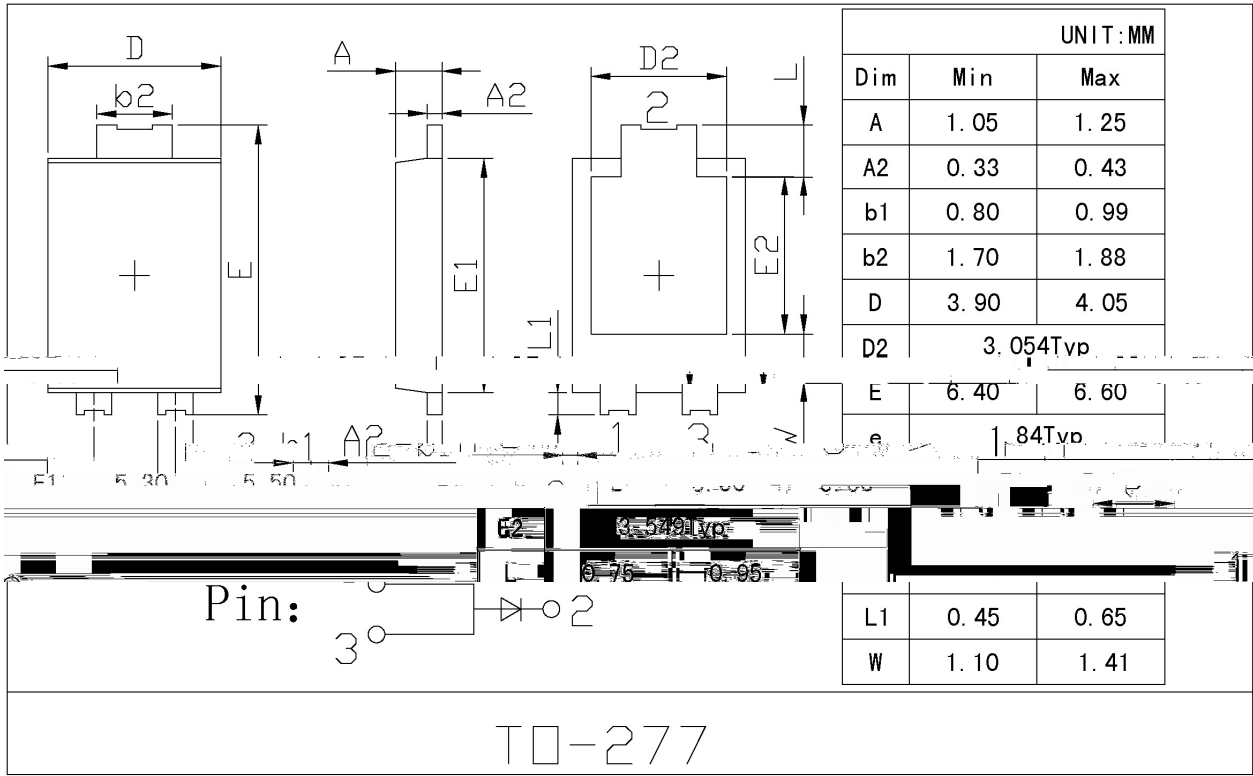
Notes

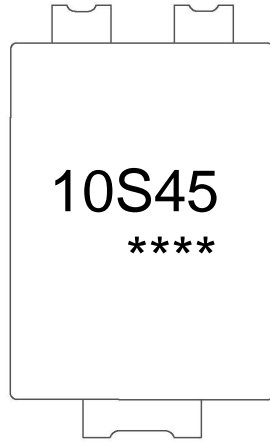
/Polymide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.

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

Rev. I Jan.-2024







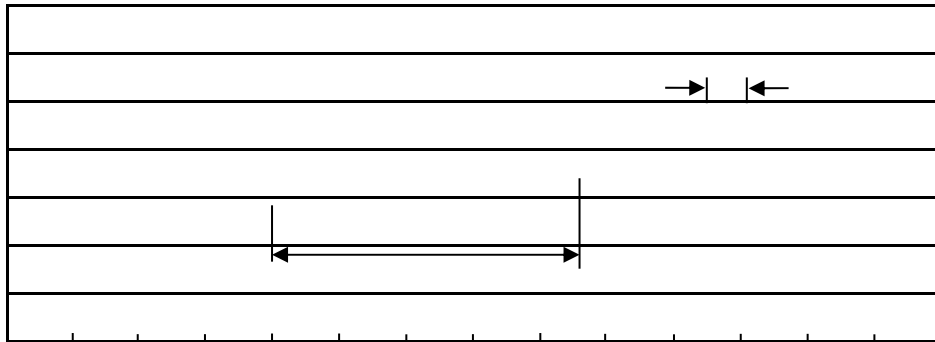
Note:

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; | 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)		
TO-277	5,000	3	15,000	6	90,000	13 x12	360x360x50	380x335x366