

/ Descriptions

TO-277

TO-277 Plastic package Schottky diode .

/ Features

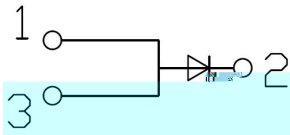
$$V_F(\text{typ})=0.21\text{V}$$

High Forward Surge Capability, Ultra Low Forward Voltage Drop $V_F(\text{typ})=0.21\text{V}$, Excellent High Temperature Stability. HF Product.

/ Applications

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

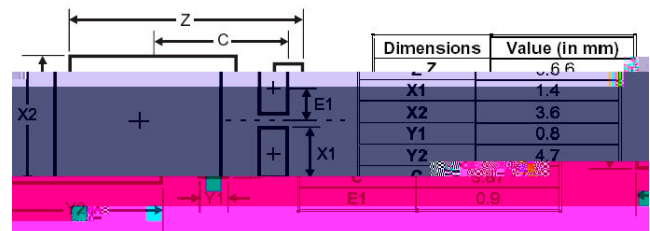
/ Equivalent Circuit



/ Pinning



PIN1 Anode PIN 2 Cathode PIN 3 Anode



Suggested Pad layout

/ h_{FE} Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage Peak Reverse Voltage	V_{RRM} V_{RWM} V_{RM}	60	V
RMS Reverse voltage	$V_{R(RMS)}$	42	V
Average Rectified Output Current	I_O	10	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	250	A
Repetitive peak avalanche power	P_{ARM}	30000	W
Junction Temperature Range	$T_{J\ MAX}$	150	
Storage Temperature Range	T_{stg}	-55 150	
Typical Thermal Resistance	$R_{\theta JA}$ Note 1	73	/W

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	$I_R=0.3mA$	60			V
Forward Voltage	V_F	$I_F=2A$ $T_J=25$		0.34	0.42	V
		$I_F=2A$ $T_J=125$		0.21		V
		$I_F=10A$ $T_J=25$		0.44	0.50	V
		$I_F=10A$ $T_J=125$		0.42		V
Instantaneous Reverse Current	I_R Note 2	$V_R=60V$ $T_J=25$		80	120	μA
		$V_R=60V$ $T_J=100$		6	12	mA
		$V_R=60V$ $T_J=125$		30	50	mA

/Notes

1. FR-4 PCB 2

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

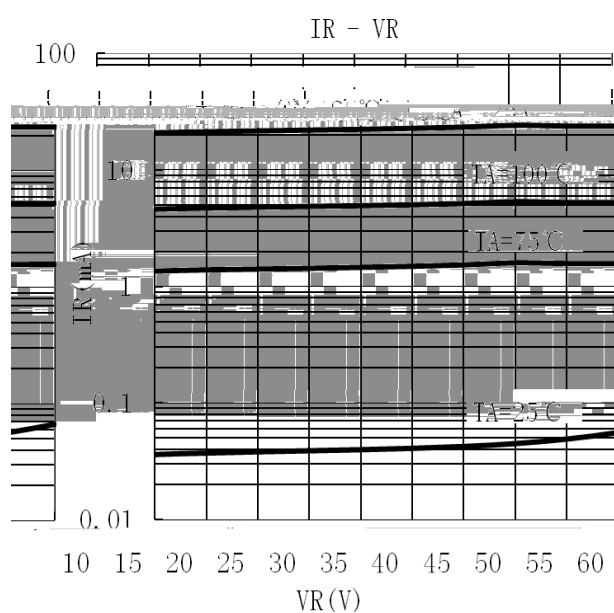
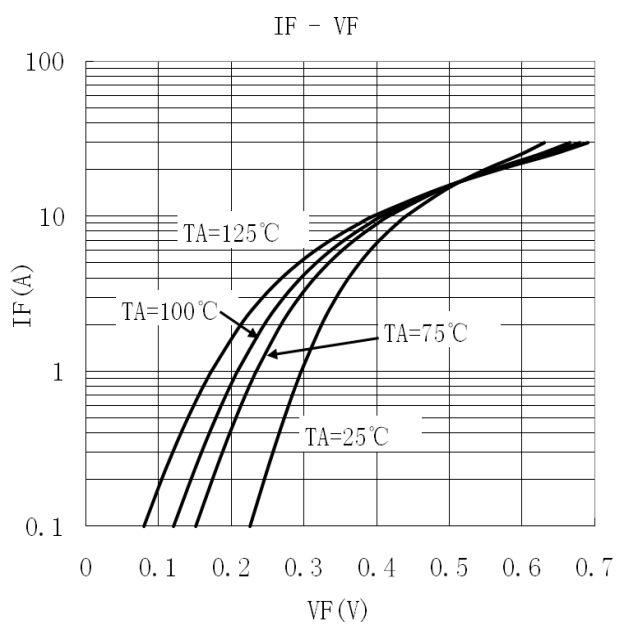
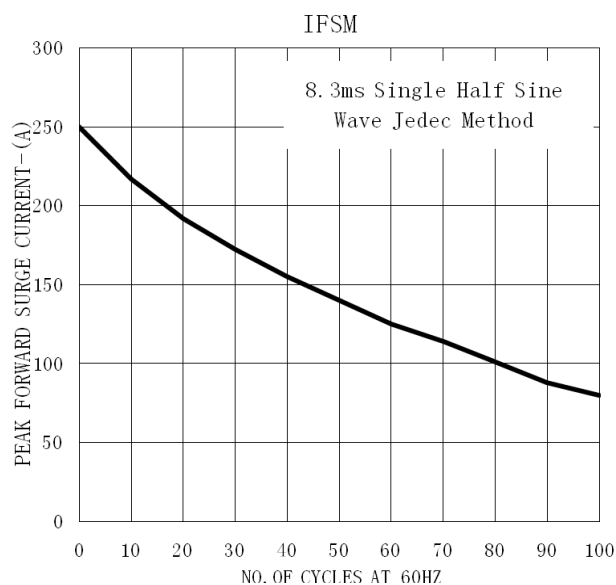
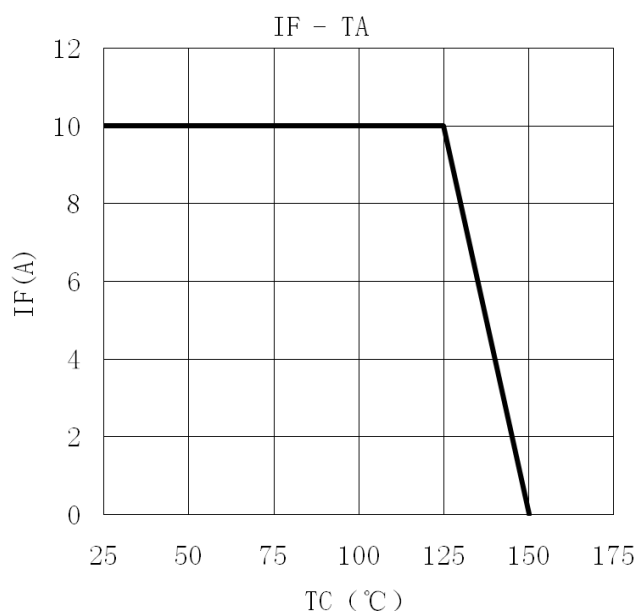
layout per.

2.

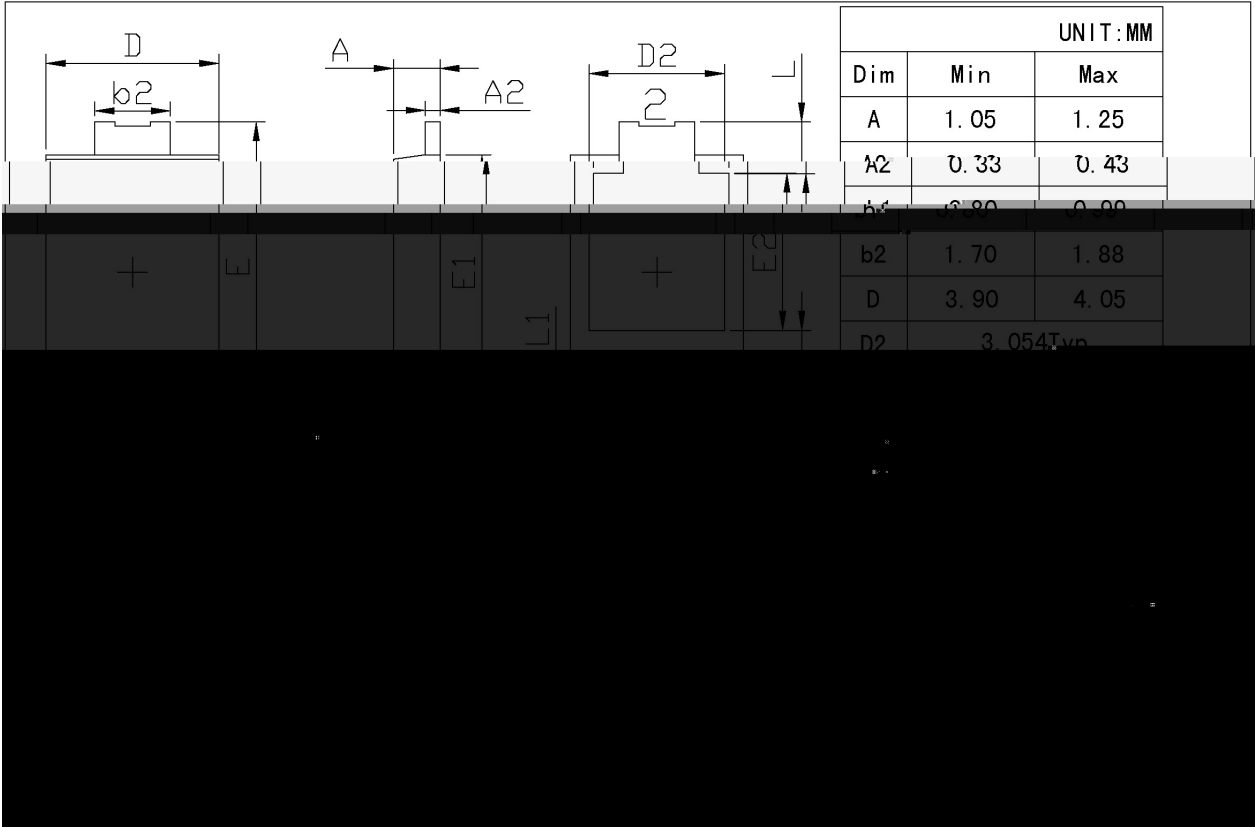
/Short duration pulse test used to minimize self-heating

effect.

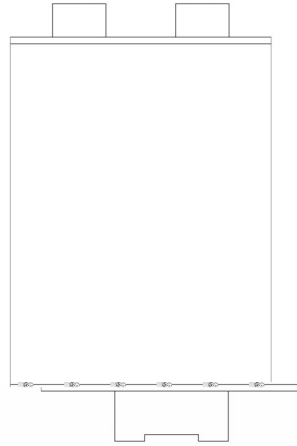
/ Electrical Characteristic Curve



/ Package Dimensions

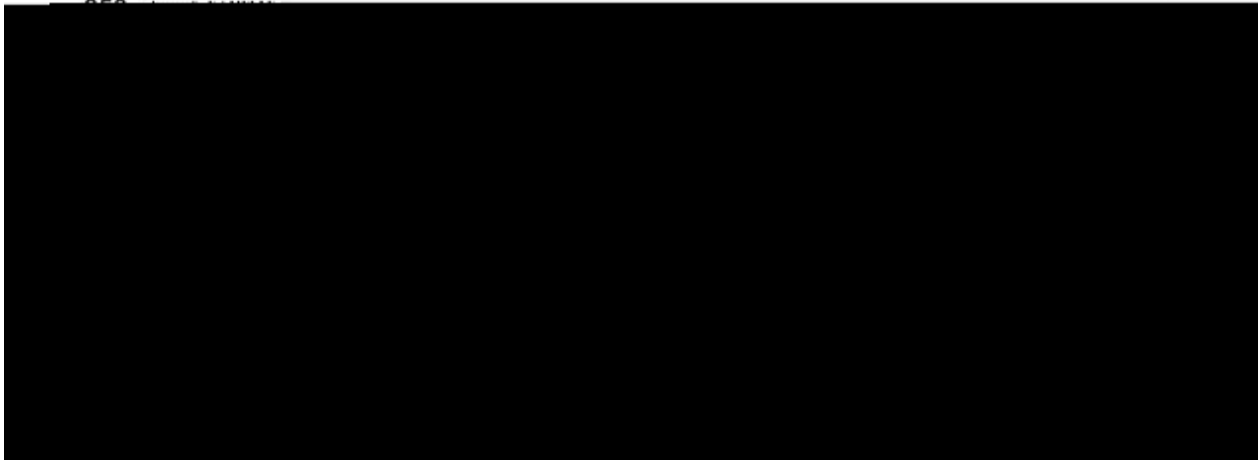


/ Marking Instructions



10S60

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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. |

/ 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)		
	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

/ Notices