

/ Descriptions

TO-277

TO-277 Plastic package Ultrafast Recovery Diode.

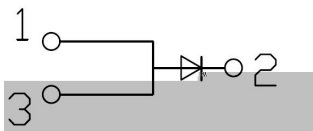
/ Features

Silicon epitaxial process to produce ultrafast recovery diode with low reverse leakage current and high reliability. HF Product.

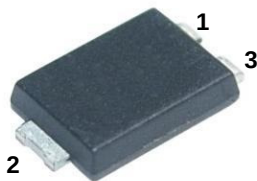
/ Applications

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

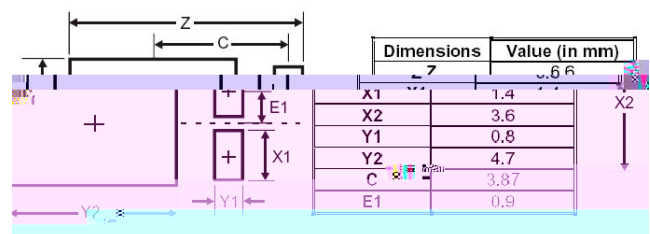
/ Equivalent Circuit



/ Pinning



PIN1 Anode PIN 2 Cathode PIN 3 Anode



Suggested Pad layout

/ h_{FE} Classifications & Marking

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
RMS Reverse voltage	V_{RMS}	420	V
Average Rectified Forward Current	I_F	8	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	125	A
Thermal Resistance Junction to Case	R_{JC}	3.5	/W
Junction and Storage Temperature Range	T_j T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_{BR}	$I_R=100\mu A$	600			V
Forward voltage	V_F	$I_F=8A$ $T_c=25$		1.4	1.7	V
		$I_F=16A$ $T_c=25$		1.7	2.1	V
		$I_F=8A$ $T_c=125$		1.4	1.7	V
Instantaneous Reverse Current	I_R Note 1	$V_R=600V$ $T_a=25$			5	μA
		$V_R=480V$ $T_a=125$			300	μA
		$V_R=600V$ $T_a=125$			500	μA
Total Capacitance	C_T	$V_R=200V$			25	pF
Reverse Recovery Time	t_{rr}	$I_F=0.5A$ $I_R=1.0A$, $I_{RR}=0.25A$			50	ns

/Notes

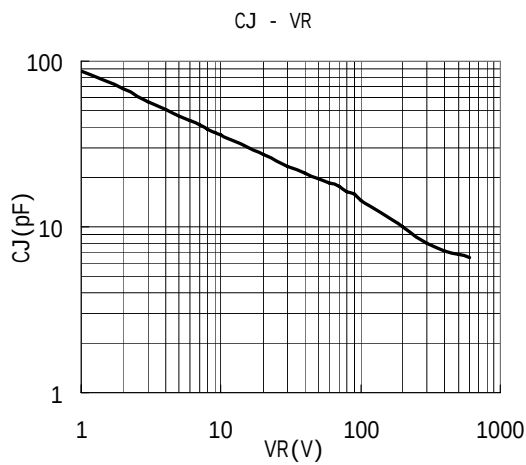
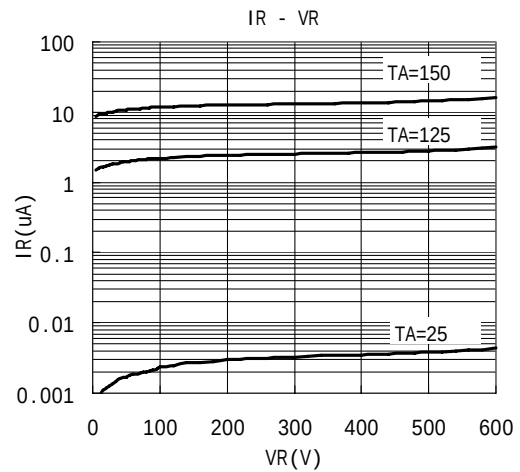
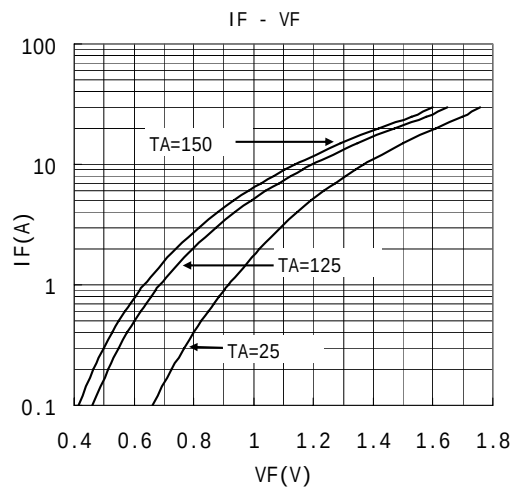
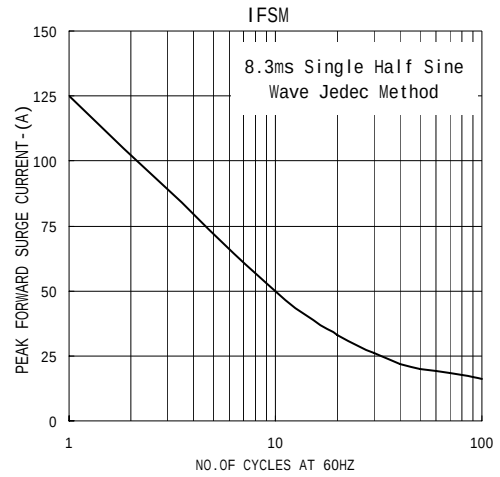
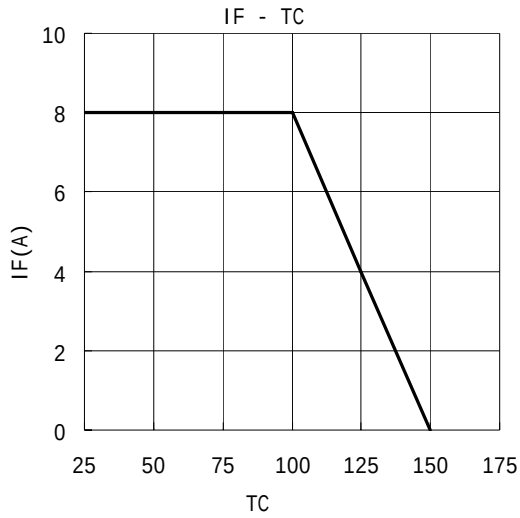
1.
effect.

2.
single chip

/Short duration pulse test used to minimize self-heating

/ Unless otherwise noted, values for the parameters of a

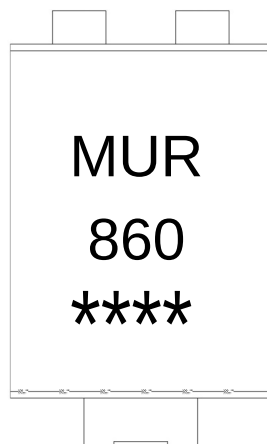
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



MUR860

Note:

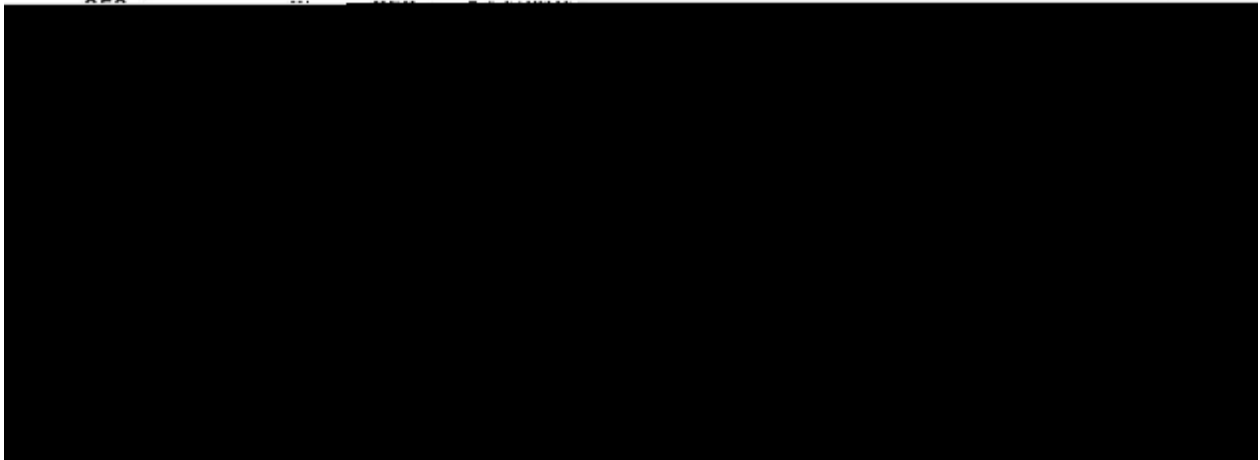
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Product Type.

****:

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. |

/ 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