

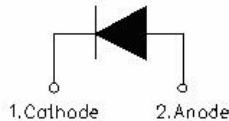
## MURF860 ULTRAFAST RECTIFIER



### Features

- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Applications

- Switching Power Supply
- Power Switching Circuits
- General Purpose

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	MURF860	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	600	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	420	V
Average Rectified Output Current @T <sub>A</sub> = 55°C	I <sub>o</sub>	8.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	110	A
Forward Voltage (per element) @I <sub>F</sub> = 8.0A, T <sub>J</sub> =25°C @I <sub>F</sub> = 8.0A, T <sub>J</sub> =100°C	V <sub>FM1</sub>	2.2	V
	V <sub>FM2</sub>	2.0	V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	5 50	μA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	50	ns
Max. Voltage Rate of Change	dv/dt	10,000	V/μs
Typical Thermal Resistance Junction to Ambient (Note 2)	R <sub>θJA</sub>	25	K/W
Storage Temperature Range	T <sub>STG</sub> , T <sub>J</sub>	-55 to +150	°C
Approximate Weight	wt	1.6	g

**Note:** 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A  
 2. Mount on Cu-Pad Size 16mm×16mm on P.C.B.

**Ratings and Characteristics Curves**

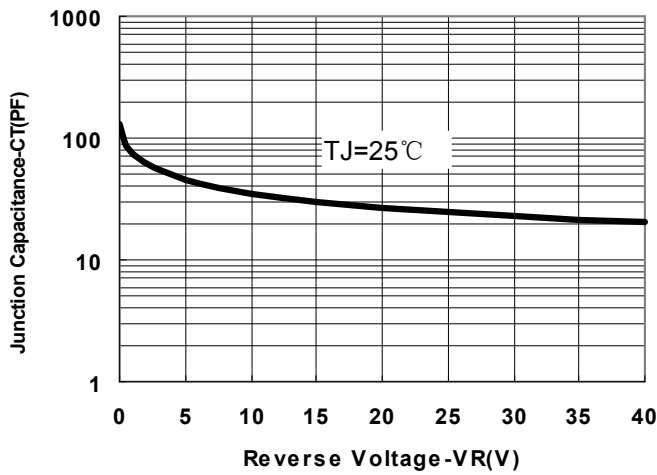


Fig.1-Typical Junction Capacitance

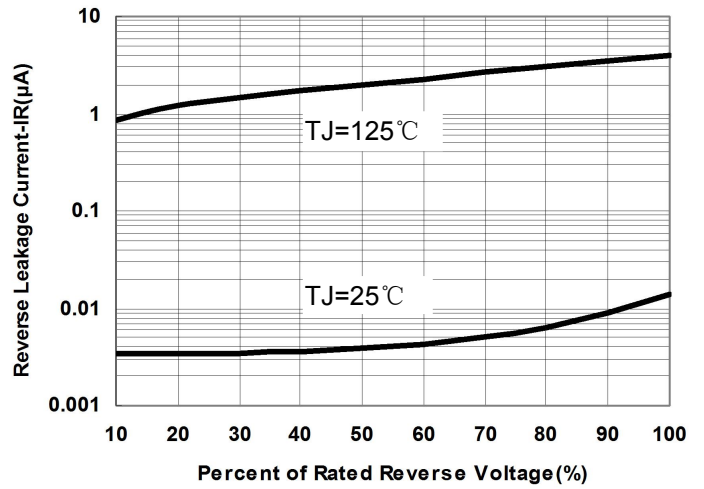


Fig.2-Typical Reverse Characteristics

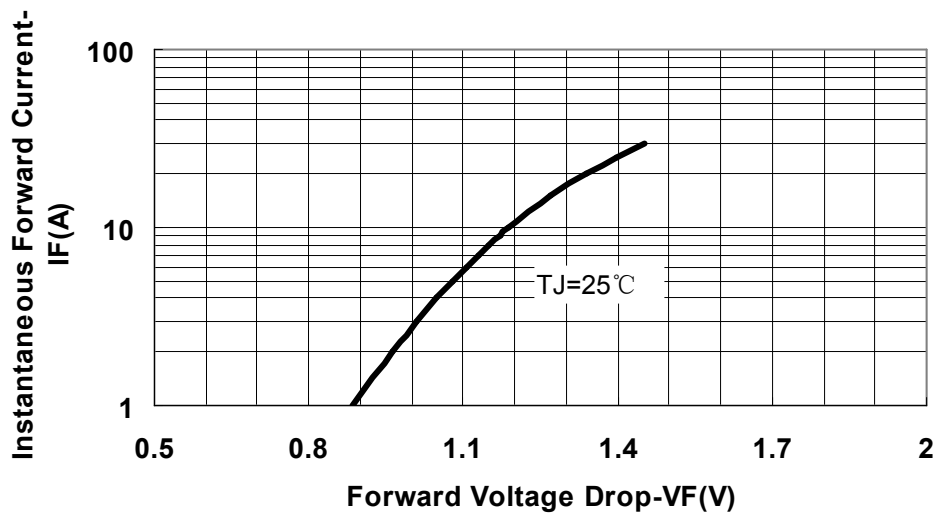
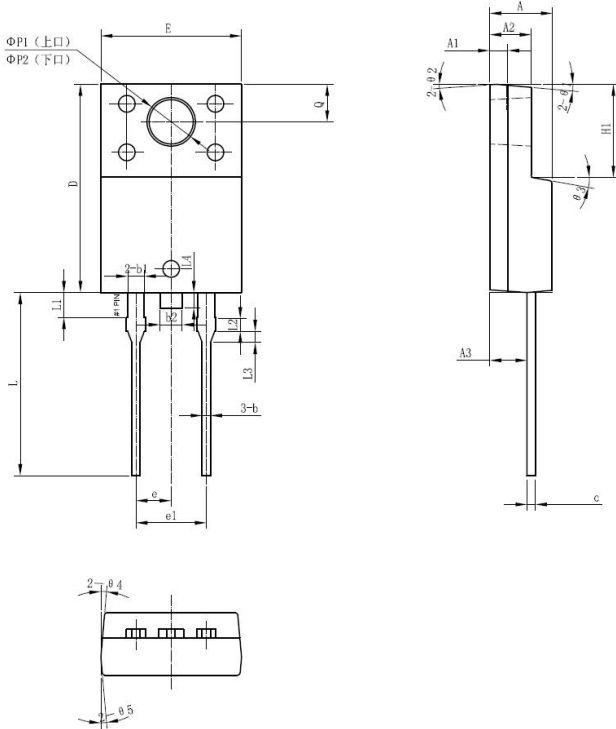


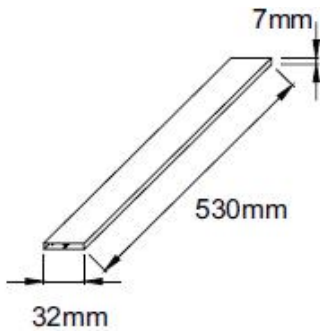
Fig.3-Typical Forward Voltage Drop Characteristics

**Mechanical Dimensions ITO-220AC**

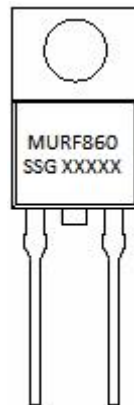


SYMBOL	Millimeters		
	MIN.	TYP.	MAX.
A	4.30	4.50	4.70
A1	1.10	1.30	1.50
A2	2.80	3.00	3.20
A3	2.50	2.70	2.90
b	0.50	0.60	0.75
b1	1.10	1.20	1.35
b2	1.50	1.60	1.75
c	0.50	0.60	0.75
D	14.80	15.00	15.20
E	9.96	10.16	10.36
e	-	2.55	-
e1	5.00	5.10	5.16
H1	6.50	6.70	6.90
L	12.70	13.20	13.70
L1	1.60	1.80	2.00
L2	0.80	1.00	1.20
L3	0.60	0.80	1.00
L4	-	1.10	1.50
ΦP1(上□)	3.30	3.50	3.70
ΦP2(下□)	2.99	3.19	3.39
Q	2.50	2.70	2.90
θ1		5°	
θ2		4°	
θ3		10°	
θ4		5°	
θ5		5°	

**Tube Specification**



**Marking Diagram**



Where XXXXX is YYWWL

- MUR = Device Type
- F = Package type
- 8 = Forward Current (8A)
- 60 = Reverse Voltage (600V)
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information**

Device	Package	Shipping
MURF860	ITO-220AC (Pb-Free)	50 pcs/ tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification



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