DATA SHEET

TYPE: 8A/600V

Packge:TO-220AC & TO-220AC F

Prepared by	Audit by	Approved by

Product specifications

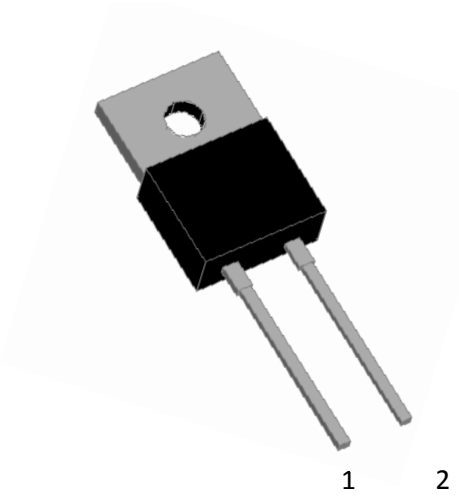
V_{RRM} = 600V
I_{FAV} = 8A
V_F = 2.0V

Product Applicationg:

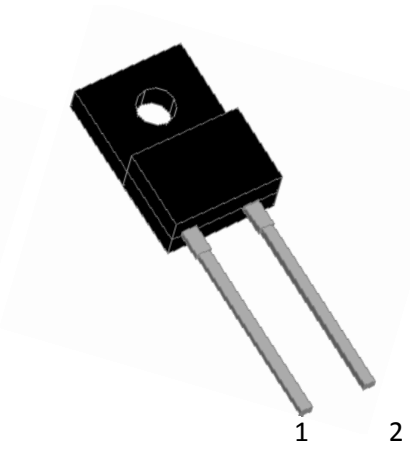
- Switchmode Power Supply
- Inverters
- Free Wheeling Diode
- Motor Controllers
- Converters
- Inverters
- Snubber Diode
- PFC

Parkage:

MUR860



MUR860 F



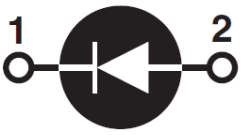
Product Features:

- Ultrafast Recovery Times
- Soft Recovery Characteristics
- Popular TO-220AC Package
- Low Forward Voltage
- Low Leakage Current
- Avalanche Energy Rated

Product Benefits:

- Low Losses
- Low Noise Switching
- Cooler Operation
- Higher Reliability Systems
- Increased System Power Density

Circuit diagram



1 - Cathode
2 - Anode
Back of Case - Cathode

MAXIMUM RATINGS

All Ratings: Tc = 25° C unless otherwise specified.

Symbol	Characteristic / Test Conditions	TYP	UNIT
VR	Maximum D.C. Reverse Voltage	600	Volts
VRRM	Maximum Peak Repetitive Reverse Voltage		
VRWM	Maximum Working Peak Reverse Voltage	480	
IF(AV)	Maximum Average Forward Current (Tc = 100℃, Duty Cycle = 0.5)	8	Amps
IFSM	Non-Repetitive Forward Surge Current (TJ = 25℃, 8.3ms)	100	
TJ ,TSTG	Operating and Storage Temperature Range	-55 to 150	° C
TL	Lead Temperature for 10 Sec	260	

STATIC ELECTRICAL CHARACTERISTICS

Symbol	Characteristic / Test Conditions		TYP	MAX	UNIT
VF	Forward Voltage	IF = 8A, TJ = 25℃	2.0	2.5	Volts
		IF = 8A, TJ = 150℃	1.5	2.1	
IRM	Maximum Reverse Leakage Current	VR = 600V, TJ =25℃		10	μA
		VR = 600V, TJ =150℃		500	
Trr	Reverse Recovery Time	IF=0.5A IRM=1A IRR=0.25A TC=25℃	20	35	ns
CJ	Junction Capacitance, VR =200V		25		pF

THERMAL AND MECHANICAL CHARACTERISTICS

Symbol	Characteristic / Test Conditions	MUR860	MUR860F	UNIT
Rθ JC	Junction-to-Case Thermal Resistance	2.0	3.5	℃/W
WT	Package Weight	1.89	1.6	g
Torque	Maximum Mounting Torque	0.8	0.5	N.m

TYPICAL PERFORMANCE CURVES

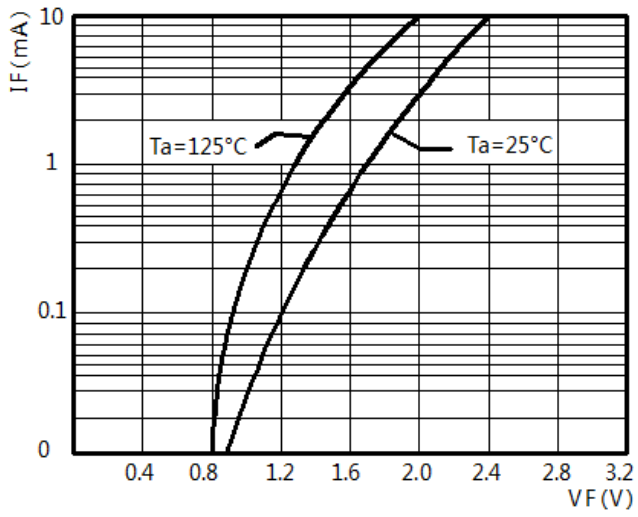


FIGURE 1. FORWARD CURRENT vs FORWARD VOLTAGE

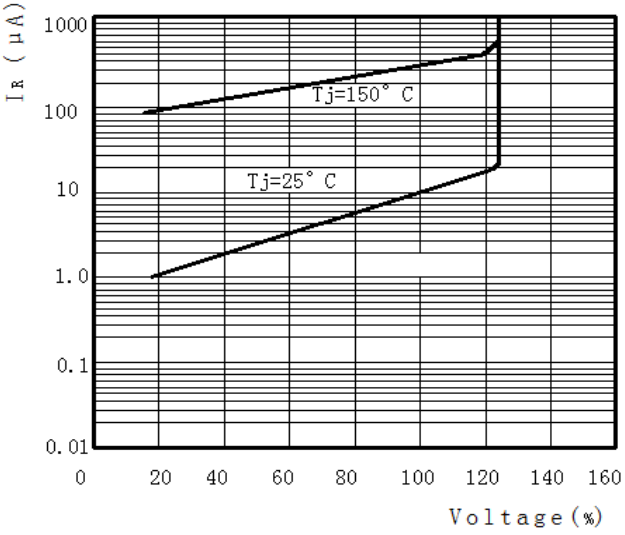


FIGURE 2. REVERSE CURRENT vs REVERSE VOLTAGE

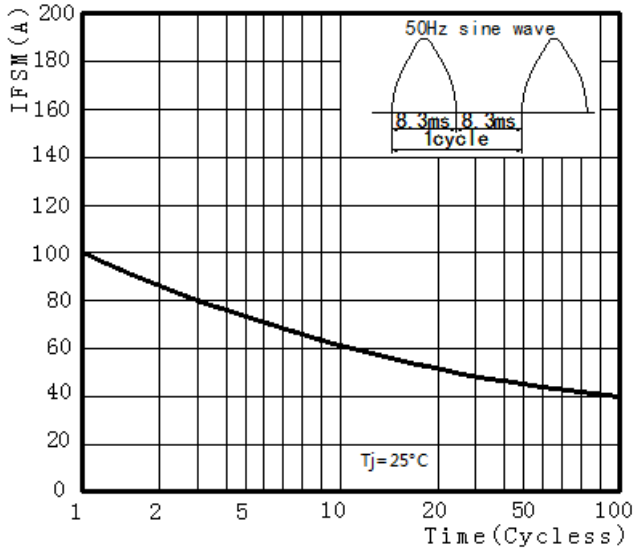


FIGURE 3. Peak Surge Forward Capability

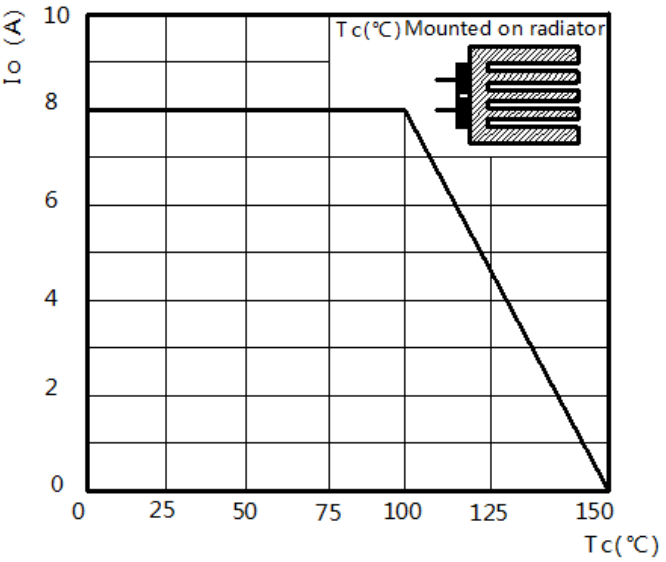


FIGURE 4. CURRENT DERATING CURVE

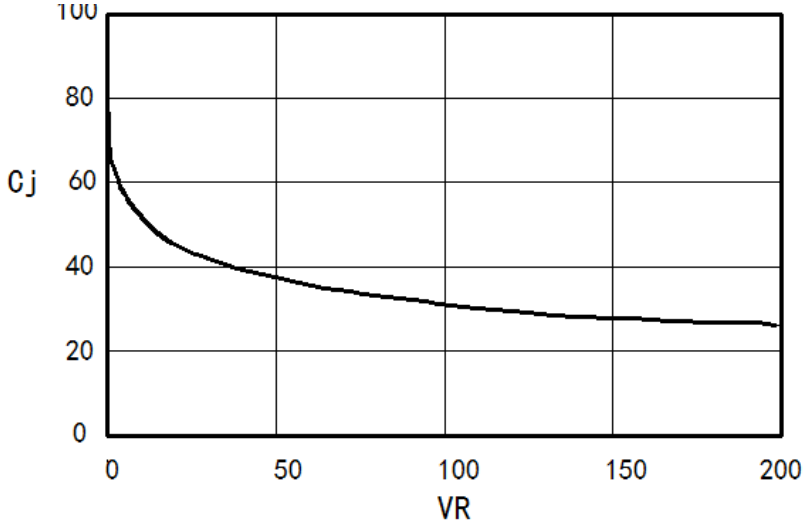
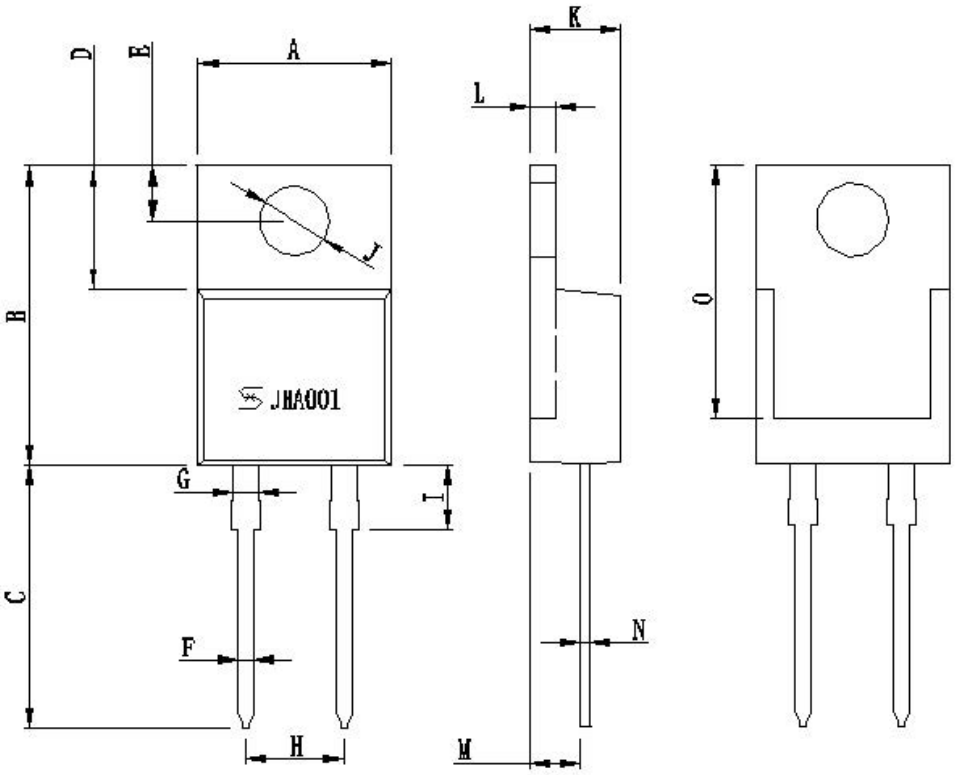


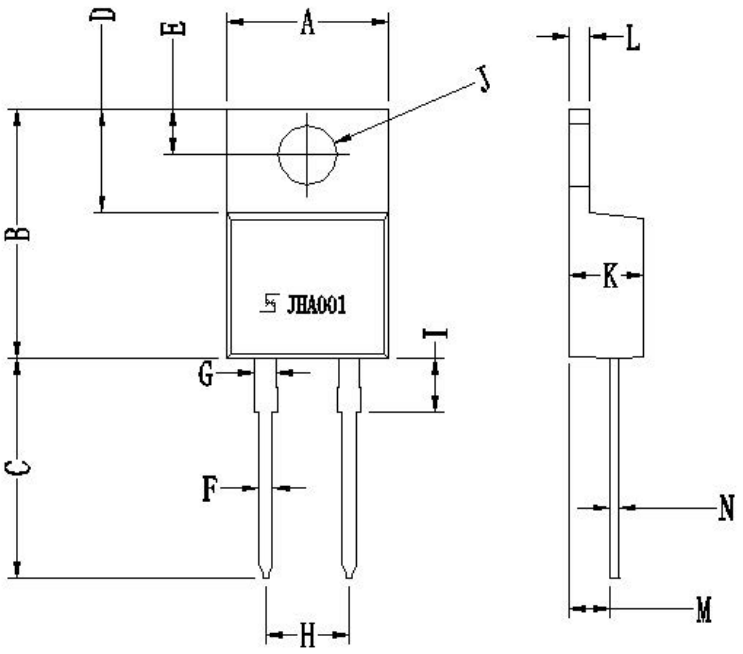
FIGURE 5. JUNCTION CAPACITANCE vs REVERSE VOLTAGE

Dimensioned drawing(TO-220AC)



Dim.	Millimeter		Inches	
	min	max	min	max
A	9.70	10.3	0.38	0.41
B	15.1	15.7	0.59	0.62
C	13	14	0.51	0.55
D	6	6.6	0.24	0.26
E	2.5	3.1	0.10	0.12
F	0.6	1	0.02	0.04
G	1.05	1.45	0.04	0.06
H	4.9	5.3	0.19	0.21
I	3.1	4.1	0.12	0.16
J	3.4	3.8	0.13	0.15
K	4.3	4.9	0.17	0.19
L	1	1.6	0.04	0.06
M	2.34	2.74	0.09	0.11
N	0.4	0.8	0.02	0.03
O	13.2	13.8	0.52	0.54

Dimensioned drawing(TO-220AC F)



Dim.	Millimeter		Inches	
	min	max	min	max
A	9.5	10.5	0.39	0.43
B	15.5	16.5	0.64	0.68
C	13	14	0.51	0.55
D	6.5	7.1	0.27	0.29
E	2.5	3.5	0.1	0.14
F	0.5	0.9	0.02	0.04
G	1.0	1.4	0.04	0.06
H	4.9	5.3	0.20	0.22
I	2	4	0.08	0.16
J	3.0	3.4	0.12	0.14
K	4.5	4.9	0.18	0.20
L	2.6	3.0	0.11	0.12
M	2.6	3.0	0.11	0.12
N	0.4	0.8	0.02	0.03

变更履历

序号	变更内容	更改原因	版本	变更人	更改时间
1	新增	新增	0	黄晓艳	2020.2.22
2	调宽产品尺寸公差，塑封体由原来的±0.1 公差，调整为±0.3	避免不必要的尺寸不合格	1	黄晓艳	2020.4.8