



# MURP60S30-20

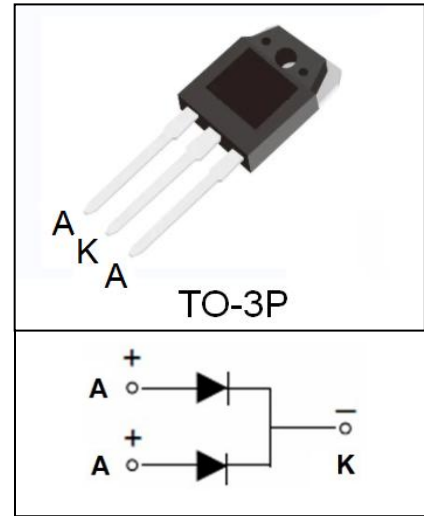
300V Fast Recovery Diode

## ● Features:

- Common Cathode Structure
- Low Power Loss and High Efficiency
- Low Reverse Recovery Current
- Soft Recovery
- Ultrafast Recovery

## ● Application:

- Switch Power Supply
- UPS Free Wheeling Diode
- PFC Boost Diode
- Snubber Diode



## Absolute Maximum Ratings (Tc=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	300	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	30(Per Leg) 60(Per Device)	A
I <sub>FSM</sub>	Peak Forward Surge Current, 8.3ms Half Sine wave	300	A
T <sub>j</sub>	Operating Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-50 to +150	°C

## Thermal Characteristics (Tc=25°C unless otherwise noted)

Symbol	Parameter	Max	Unit
R <sub>θJC</sub>	Thermal Resistance, Junction to Case Per Leg	0.9	°C / W

## Electrical Characteristics (Tc=25°C unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	I <sub>R</sub> =250μA	300	--	--	V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 300V T <sub>C</sub> =25°C	--	--	10	μA
		V <sub>R</sub> = 300V T <sub>C</sub> =125°C	--	--	500	
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =30A T <sub>C</sub> =25°C	--	1.0	1.2	V
		I <sub>F</sub> =30A T <sub>C</sub> =125°C	--	0.9	1.1	
t <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> =0.5A I <sub>R</sub> =1.0A I <sub>rr</sub> =0.25A	--	35	50	ns



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### Typical Performance Characteristics

Figure 1. Forward Current Characteristics

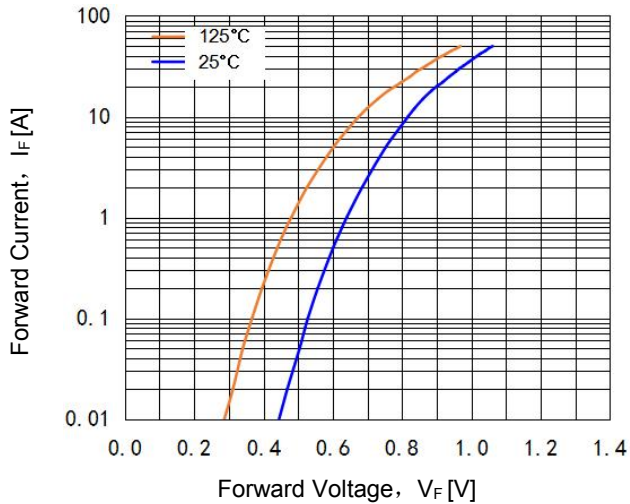


Figure 2. Reverse Leakage Current

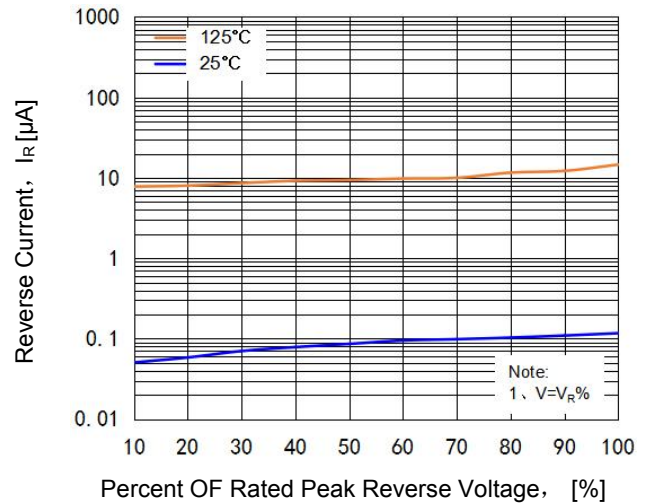


Figure 3. Junction Capacitance

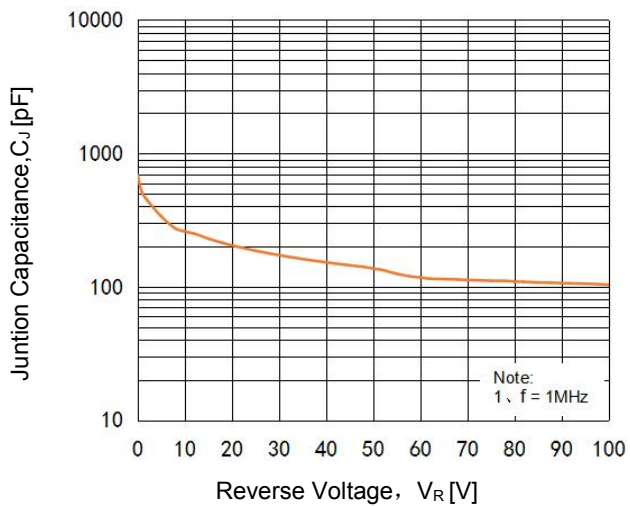
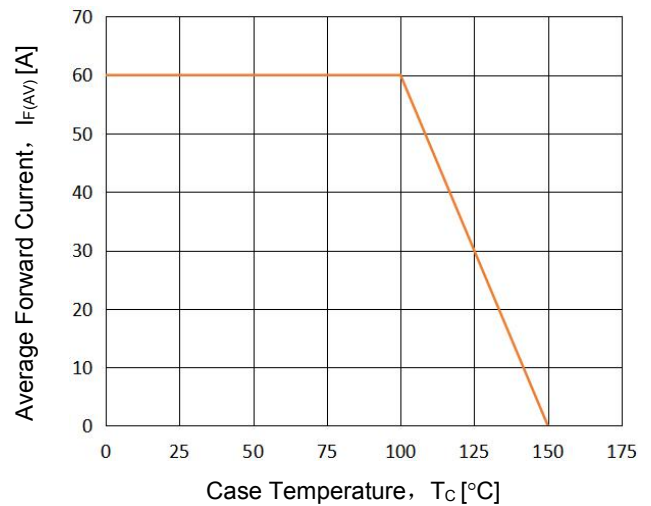


Figure 4. Forward Current Derating Curve





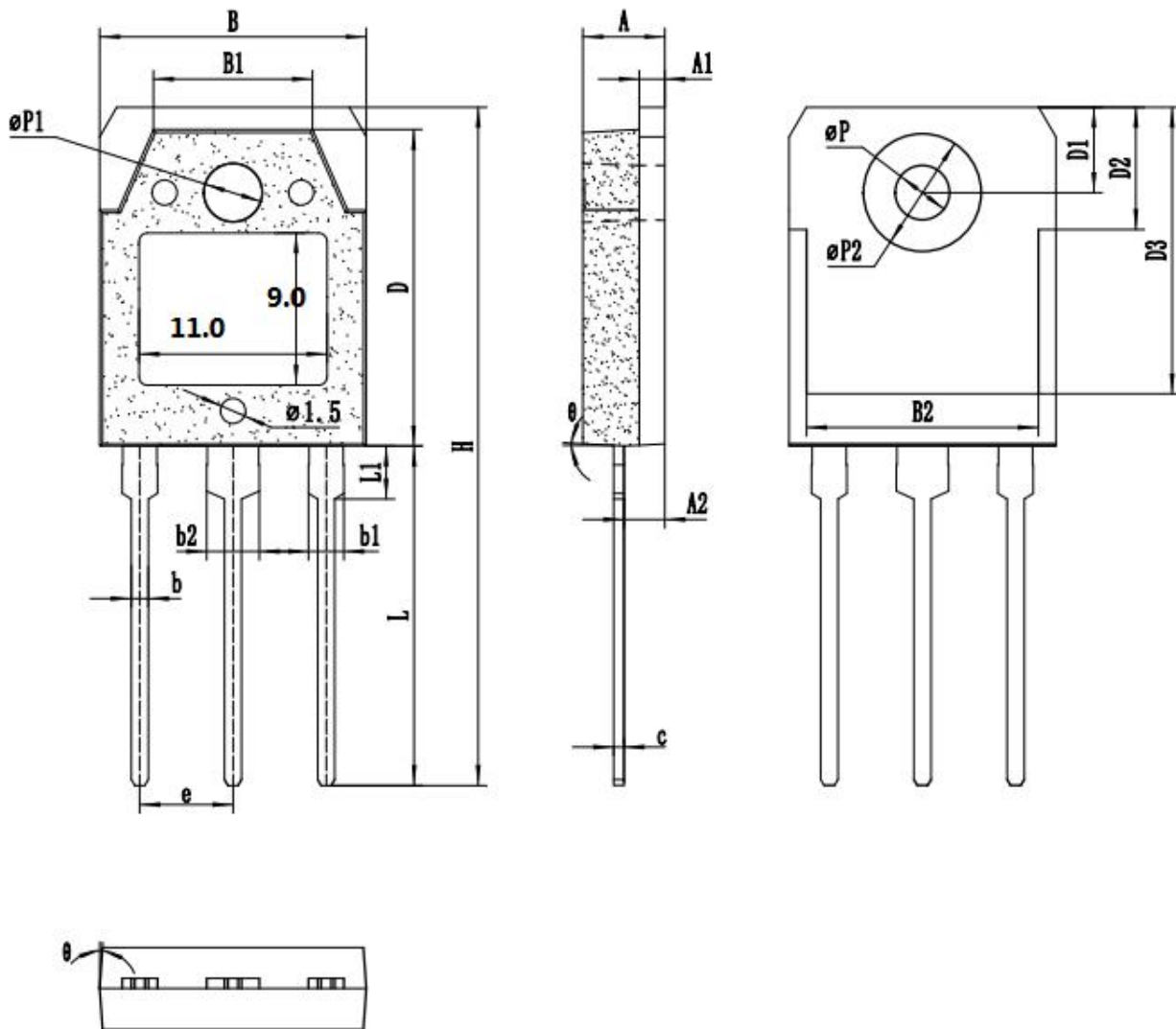
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## TO-3P Package Dimensions

UNIT: mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	4.50	4.80	5.10	D	18.00	18.50	19.00
A1	1.40	1.50	1.60	D1	4.60	5.00	5.40
A2	2.10	2.40	2.70	D2	6.70	7.10	7.50
b	0.80	1.00	1.20	D3	16.20	16.70	17.20
b1	1.90	2.10	2.30	L1	2.70	3.10	3.50
b2	2.90	3.10	3.30	L	19.20	20.20	21.20
e		5.45		H	38.40	39.90	41.40
B	15.20	15.70	16.20	ΦP	2.90	3.15	3.40
B1	9.10	9.40	9.70	ΦP1	3.15	3.40	3.65
B2	13.20	13.60	14.00	ΦP2	6.70	7.00	7.30
c	0.50	0.60	0.70	θ	3°	5°	7°





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### 注意事项:

- 1、在电路设计时请不要超过器件的最大额定值，否则会影响整机的可靠性。
- 2、如需安装散热片，请注意控制扭力大小及散热片的平整度。
- 3、该规格书由华科公司制作，并可能不定期更改，恕不另行通知。
- 4、如有疑问，请及时联系我司销售代表。

### 版本履历表:

序号	版本号	修改时间	修改记录
1	V1.0	2023-5-10	首次发行