●Features：

■Common Cathode Structure

■Low Power Loss and High Efficiency

■Low Forward Voltage Drop

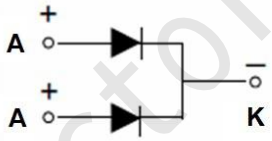
■High Surge Capability

TO-220F

●Application:

■ High Frequency Switch

■ Free Wheeling,and Polarity Protection Applications



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

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	400	V
V_R	Maximum DC Reverse Voltage	400	V
$I_{F(AV)}$	Average Rectified Forward Current, Tc=120°C	8(Per Leg) 16(Per Device)	A
I_{FSM}	Peak Forward Surge Current,8.3ms Half Sine wave	140	A
Tj	Operating Junction Temperature	150	°C
Tstg	Storage Temperature Range	-55 to+150	°C

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

Symbol	Parameter	Max	Unit
$R_{\theta JC}$	Thermal Resistance,Junction to Case Per Leg	3.8	°C /W

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

Symbol	Parameter	Test Conditons	Min	Max	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	I_R=100μA	400		V
I_R	Reverse Current	V_R =400V Tc=25°C V_R =400V Tc=125°C		0.1 5	mA
V_F	Forward Voltage	I_F=8A Tc=25°C I_F=8A Tc=125°C I_F=16A Tc=25°C I_F=16A Tc=125°C		1.30 1.20 1.40 1.30	V
T_{rr}	Maximum Reverse Recovery Time	I_F=0.5A I_R=1.0A I_{rr}=0.25A		50	ns

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Typical Performance Characteristics

Figure 1. Forward Current Characteristics

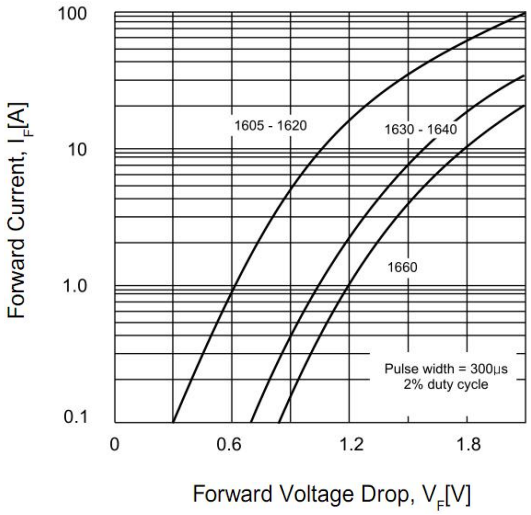


Figure 2. Reverse Leakage Current

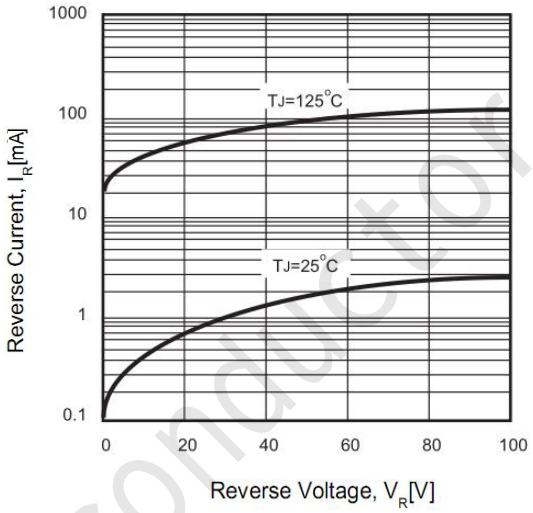


Figure 3. Junction Capacitance

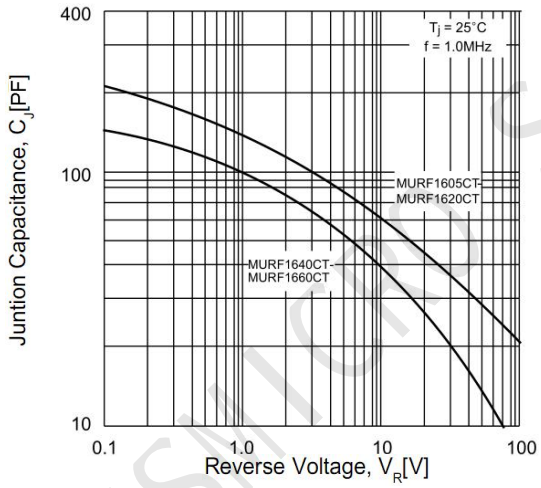
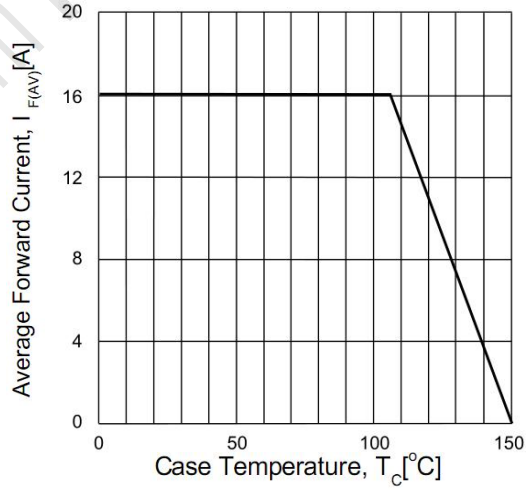


Figure 4. Power Derating



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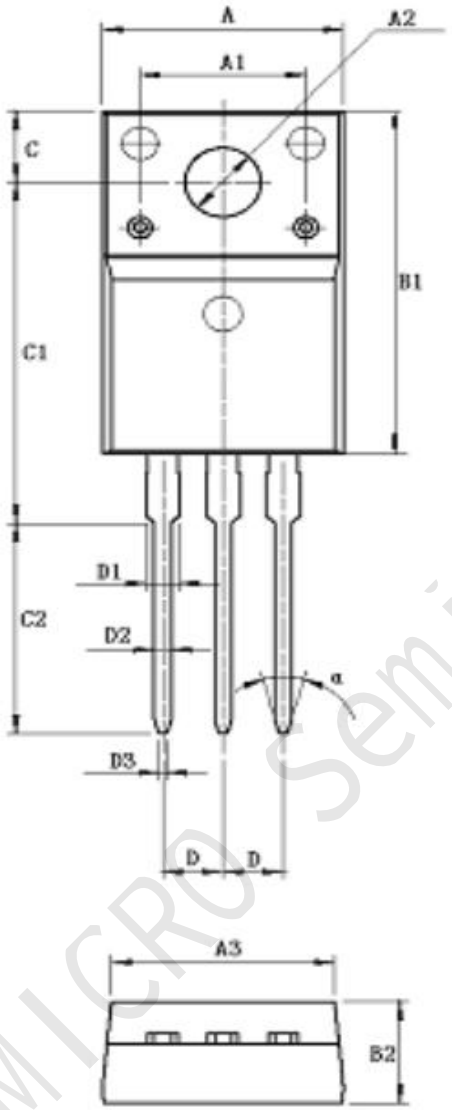
TO-220F Package Dimensions



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UNIT：mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	9.80		10.60	D		2.54	
A1		7.00		D1	1.15		1.55
A2	2.90		3.40	D2	0.60		1.00
A3	9.10		9.90	D3	0.20		0.50
B1	15.40		16.40	E	2.24		2.84
B2	4.35		4.95	E1		0.70	
B3	6.00		7.40	E2		1.0×45°	
C	3.00		3.70	E3	0.35		0.65
C1	15.00		17.00	E4	2.30		3.30
C2	8.80		10.80	α（度）		30°	