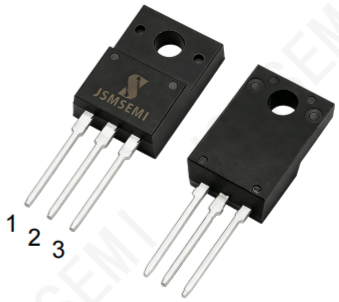
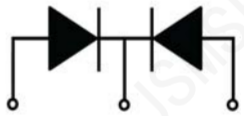
Features:

- Low power loss, high efficiency.
- High surge capacity
- For use in low voltage, high frequency inverters,
- free wheeling, and polarity protection applications.
- Metal silicon junction, majority carrier conduction.
- High current Capability, low forward voltage drop.
- Guard ring for over voltage protection.



TO-220F-3



1.Anode 2.Cathode 3. Anode

Absolute Maximum Ratings (Ta=25℃ unless otherwise noted)

Parameter		Symbol	MBRF 4040 CT	MBRF 4045 CT	MBRF 4050 CT	MBRF 4060 CT	MBRF 4080 CT	MBRF 4090 CT	MBRF 40100 CT	MBRF 40150 CT	MBRF 40200 CT	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage		V_{RMS}	28	31.5	35	42	56	63	70	105	140	
Maximum DC Blocking Voltage		$V_{R(DC)}$	40	45	50	60	80	90	100	150	200	
Maximum Average Forward Current		$I_{F(AV)}$	40									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	275									
Maximum Forward Voltage at 15A per leg		V_F	0.7		0.75		0.85			0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	Tj=25℃	I_R	0.1									mA
	Tj=125℃		20									
Maximum Operating Junction Temperature		T_j	150				175					℃
Storage Temperature		T_{stg}	-55~+150				-65~+175					
Typical Thermal Resistance		$R_{\theta JC}$	1.4									℃/W

Ratings and Characteristic Curves

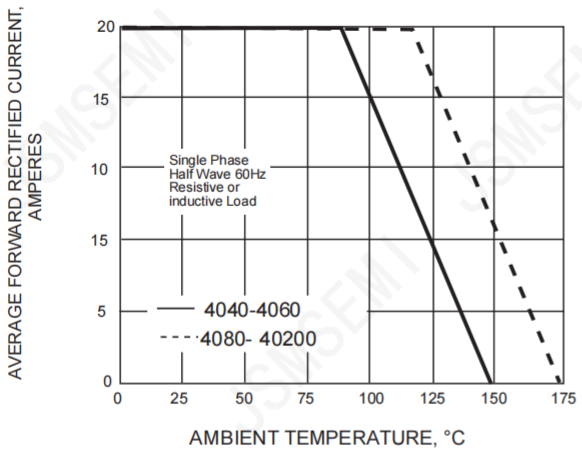


Fig.1 FORWARD CURRENT ERATING CURVE

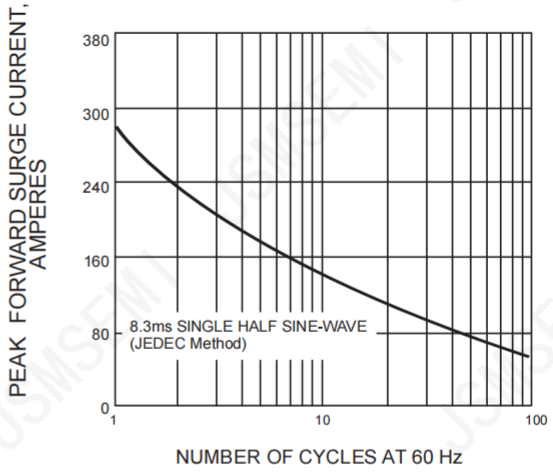


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

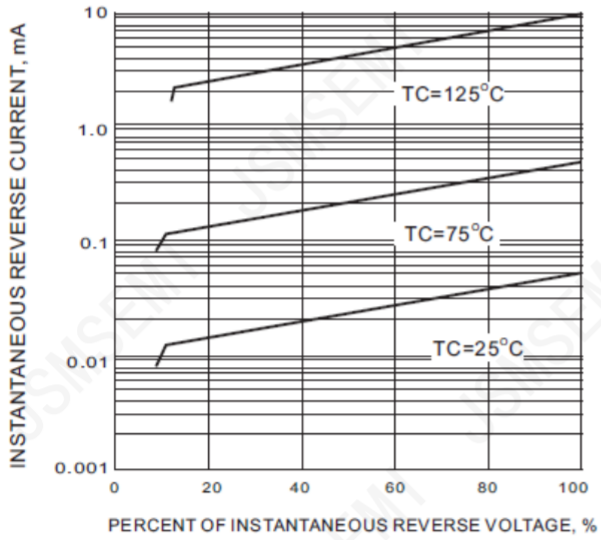


Fig.3 TYPICALREVERSE CHARACTERISTIC

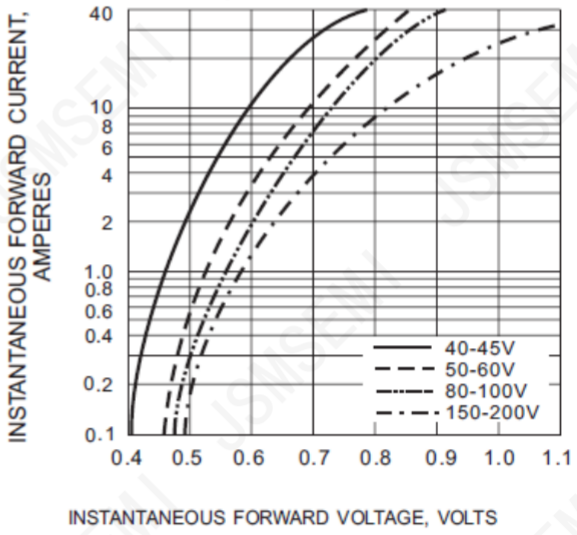
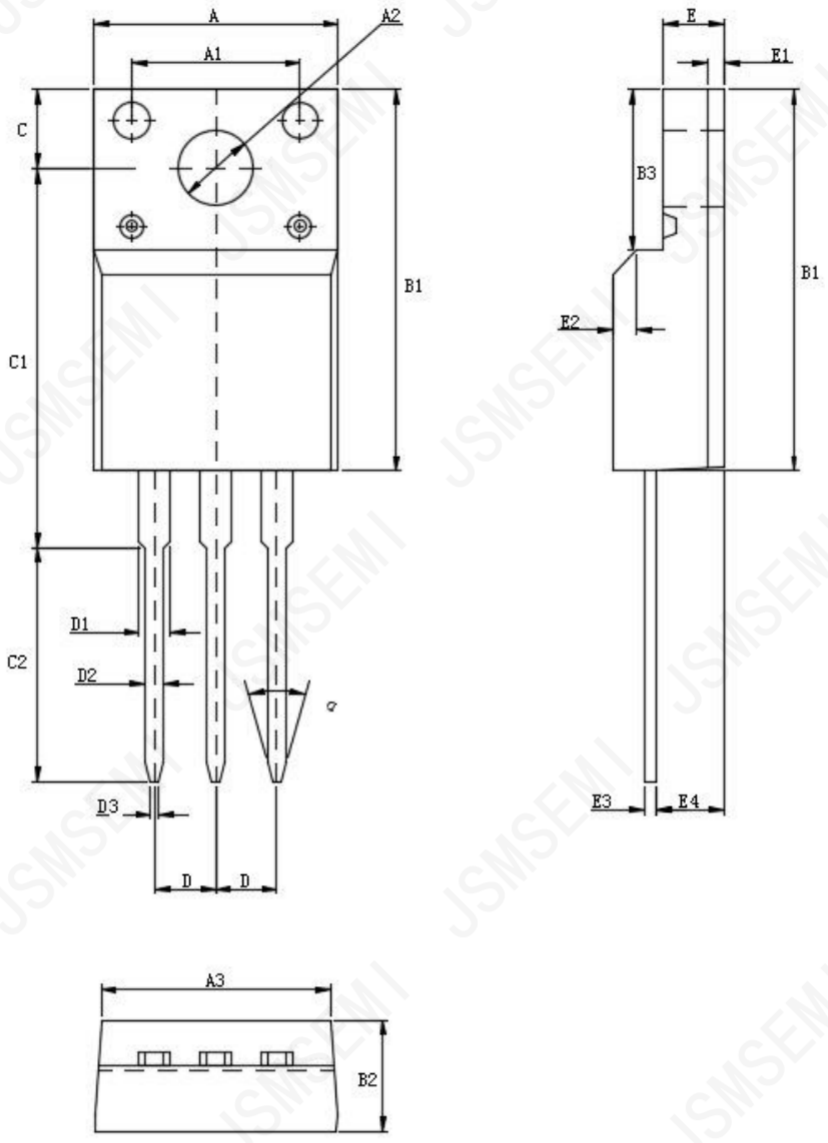


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Information

TO-220F-3



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°	