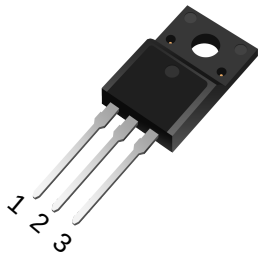
30 AMPS SCHOTTKY BARRIER RECTIFIER

MBRF3040SCT-MBRF30200SCT

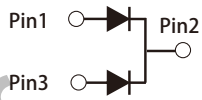
TO-220F

RoHS COMPLIANT



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.



1.Anode 2.Cathode 3. Anode

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

PARAMETER		Symbol	MBRF 3040 SCT	MBRF 3045 SCT	MBRF 3050 SCT	MBRF 3060 SCT	MBRF 3080 SCT	MBRF 3090 SCT	MBRF 30100 SCT	MBRF 30150 SCT	MBRF 30200 SCT	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	V
Maximum DC Blocking Voltage		$V_{R(DC)}$	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current		$I_{F(AV)}$	30									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	200									A
Maximum Forward Voltage at 10A per leg		V_F	0.65		0.72		0.82			0.92		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	Tj=25℃	I_R	0.1									mA
	Tj=125℃		20									mA
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

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Typical Characteristics

RATING AND CHARACTERISTIC CURVES

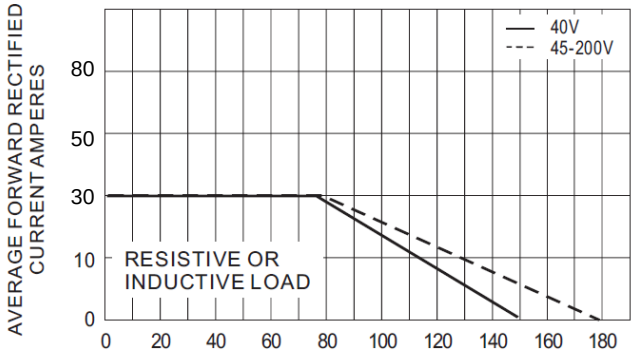

Fig.1 FORWARD CURRENT ERATING CURVE

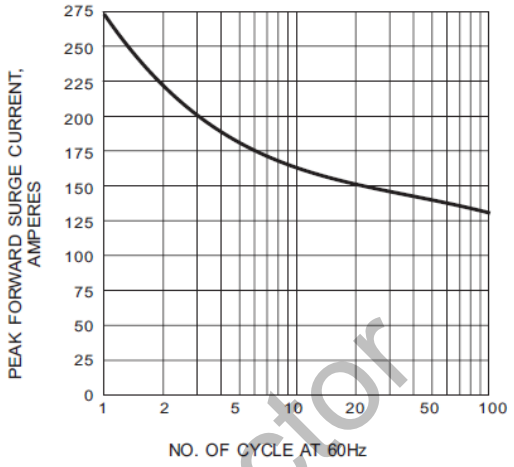

Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

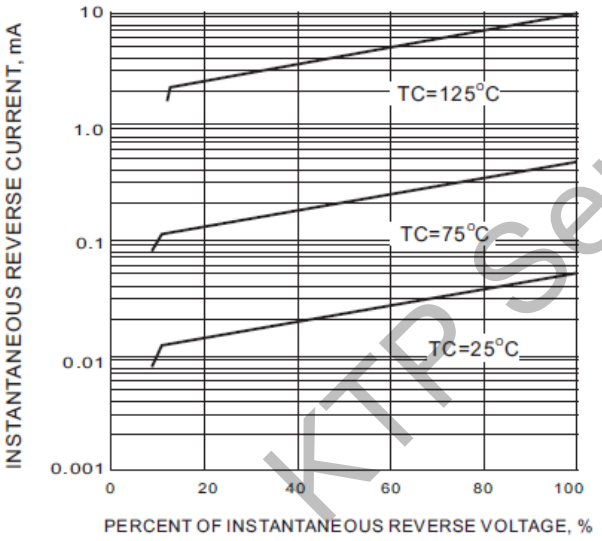

Fig.3 TYPICALREVERSE CHARACTERISTIC

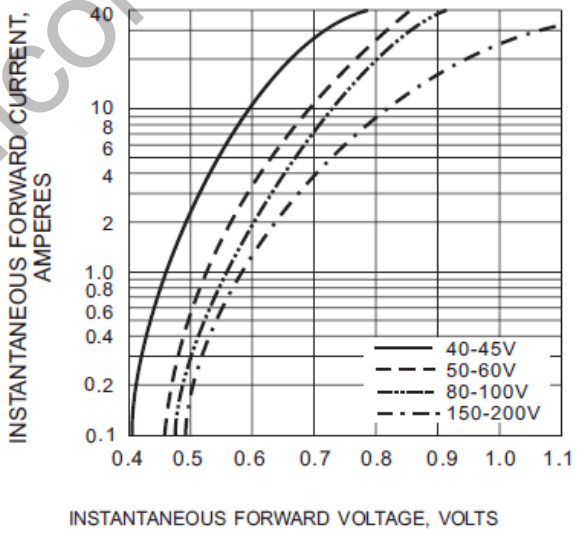

Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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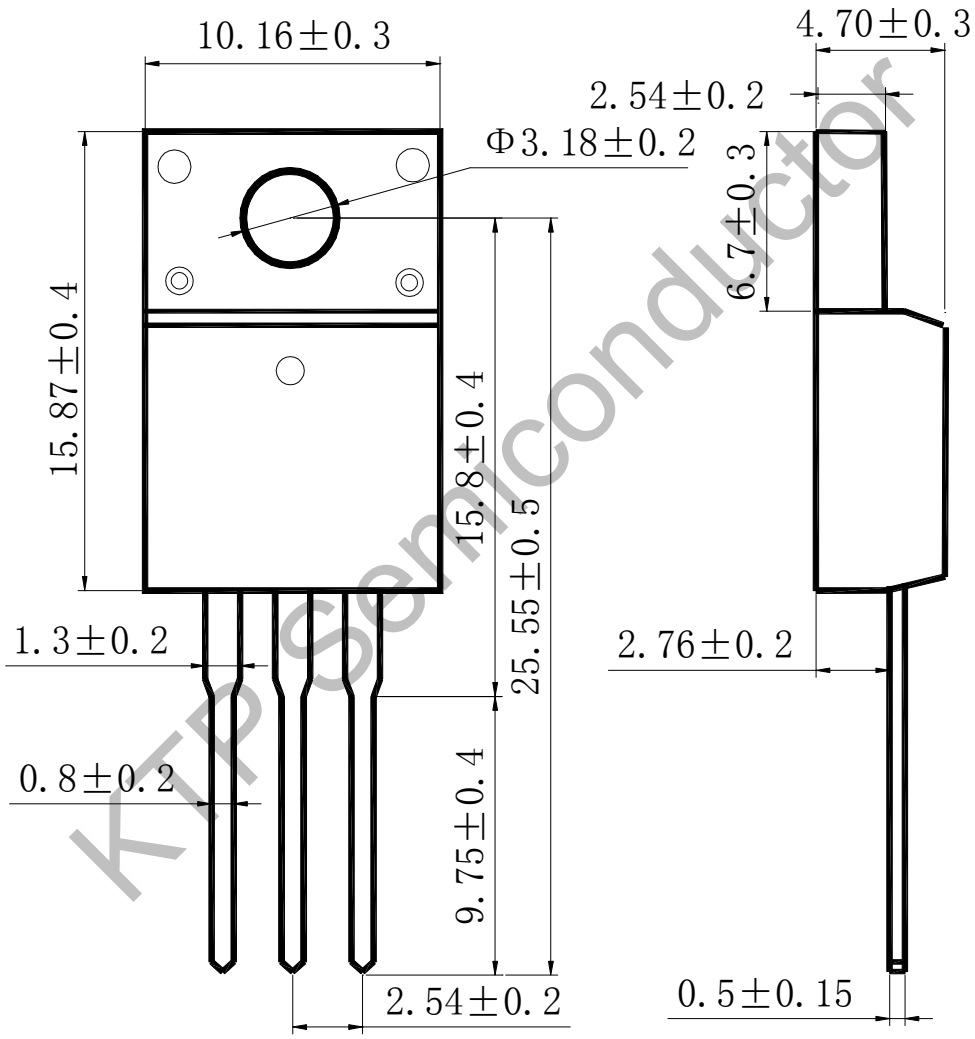
Package Dimension

TO-220F

Unit: mm



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