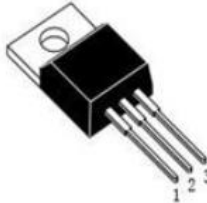
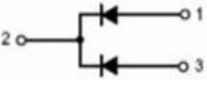
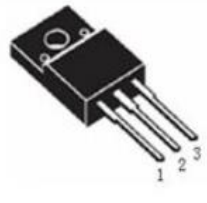


SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE 45 Volts FORWARD CURRENT 30 Amperes
<p>FEATURES</p> <ul style="list-style-type: none"> • Metal-Semiconductor junction with guard ring • Epitaxial construction • The plastic material carries UL recognition 94V-0 • High Current Capability and Low Forward Voltage Drop • For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: TO-220, TO-220F • Polarity: As Marked 	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>MBR3045CT</p>  <p>TO-220</p>  </div> <div style="text-align: center;"> <p>MBR3045FCT</p>  <p>TO-220F</p> <p>1、 ANODE 2、 CATHODE 3、 ANODE</p> </div> </div>

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Characteristics		Symbol	MBR3045CT	MBR3045FCT	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	45		V
Maximum RMS voltage		V_{RMS}	32		V
Maximum DC blocking voltage		V_{DC}	45		V
Maximum Instaneous Forward Voltage		V_F	0.7		V
$I_F=15A @25^{\circ}C$			0.6		
$I_F=15A @100^{\circ}C$			0.2		
Peak Reverse Current		I_R	15		mA
at Rated DC Blocking Voltage			15		
Average Output Rectifie Current (per leg)		I_F	30		A
(total device)			15		
Non-Repetitive Peak Surge Current		I_{FSM}	200		A
Surge applied at rated load conditions			700		
halfwave,single phase,60Hz			4.5		
Typical Junction Capacitance		C_J	60		pF
Maximum Thermal Resistance		$R_{\theta Jc}$	2.2		°C/W
		$R_{\theta Jc}$	4.5		
		$R_{\theta Ja}$	60		
		$R_{\theta Ja}$	60		
Junction and StorageTemperature Range		T_J, T_{STG}	-55 to +150		°C

--	--

Rating and Characteristic Curves

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

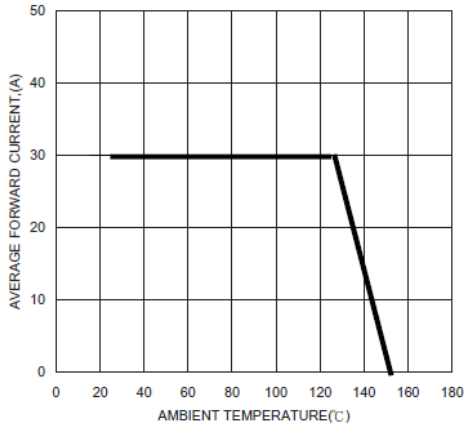


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

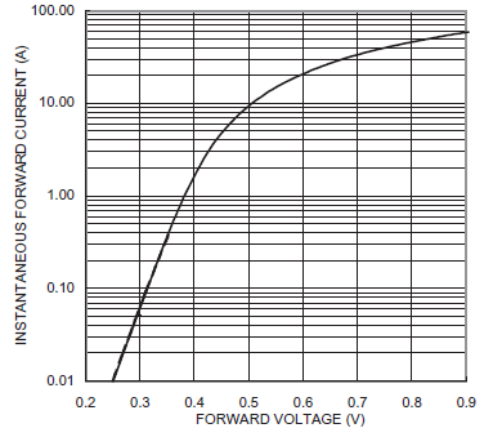


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

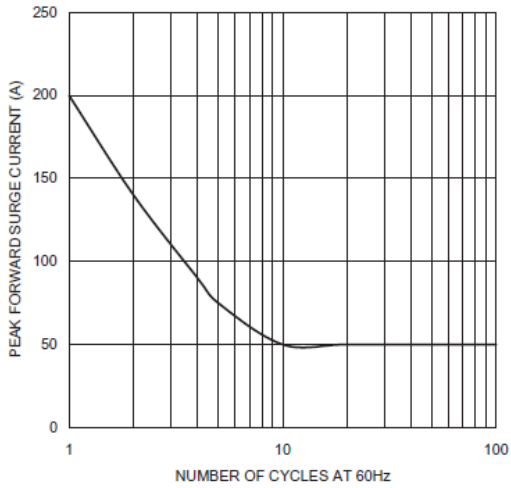


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

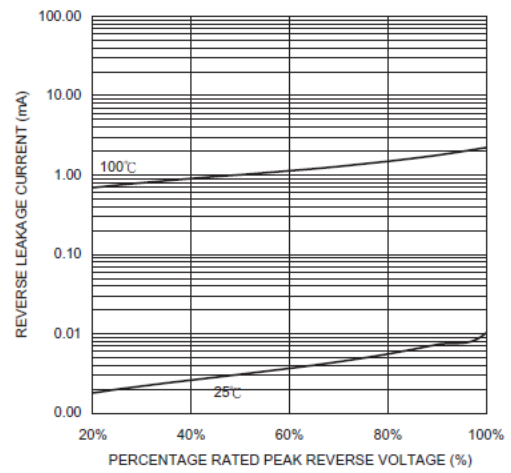
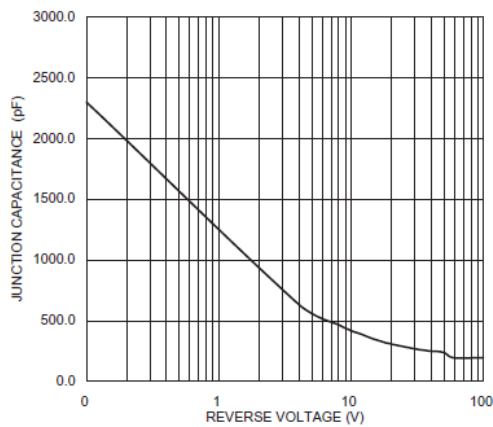


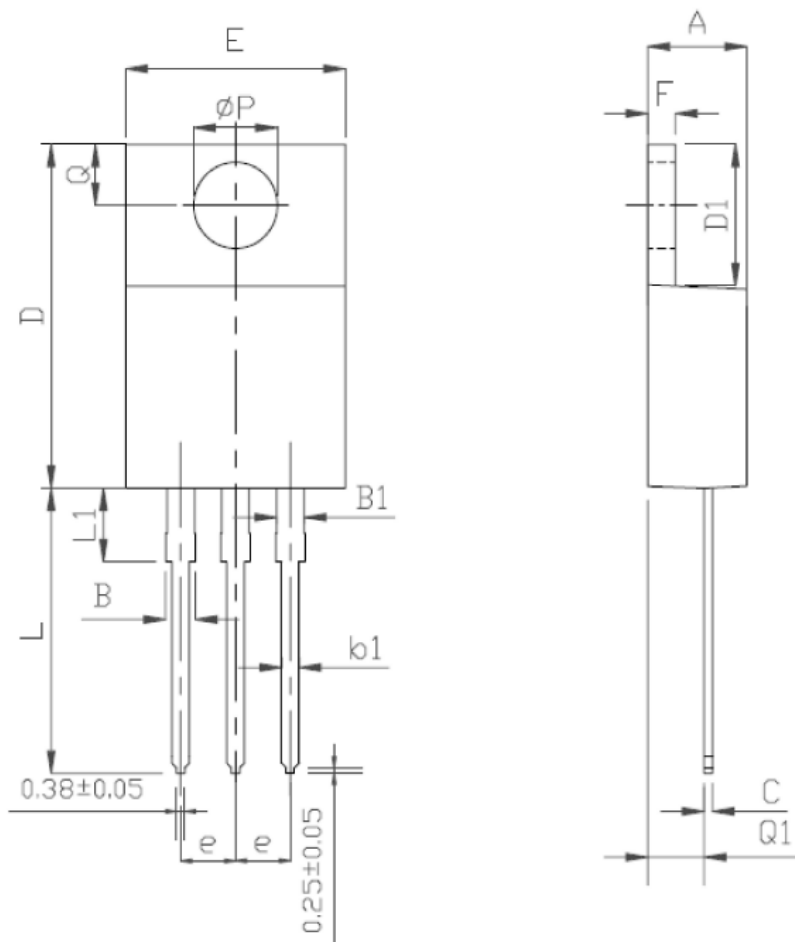
FIG. 5-TYPICAL JUNCTION CAPACITANCE



TO-220 MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	4		4.8	e	2.44	2.54	2.64
B	1.2		1.4	F	1.1		1.4
B1	1		1.4	L	12.5		14.5
b1	0.75		0.95	L1	3	3.5	4
c	0.4		0.55	ΦP	3.7	3.8	3.9
D	15		16.5	Q	2.5		3
D1	5.9		6.9	Q1	2		2.9
E	9.9		10.7				



TO-220F MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	4.5		4.9	E1	6.5	7	7.5
A1	2.3		2.9	e	2.44	2.54	2.64
b	0.65		0.9	L	12.5		14.3
b1	1.1		1.7	L1	9.45		10.05
b2	1.2		1.4	L2	15		16
c	0.35		0.65	L3	3.2		4.4
D	14.5		16.5	ΦP	3		3.3
D1	6.1		6.9	Q	2.5		2.9
E	9.6		10.3				

