

#### ■ FEATURES

- Multilayer Metal -Silicon Potential Structure.
- Low Leakage Current.
- High Current Capability, High Efficiency.
- High Junction Temperature Capability.

#### ■ TYPICAL APPLICATIONS

- Low Voltage High Frequency Switching Power Supply.
  - Low Voltage High Frequency Invers Circuit.
  - Low Voltage Continued Circuit and Protection Circuit.
- For use in ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

#### ■ MECHANICAL DATA

- Package: TO-247AB  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals : Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity : As marked

#### ■ MAXIMUM RATINGS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR3045PT
Device marking code			MBR3045PT
Repetitive peak reverse voltage	VRRM	V	45
Average Rectified Forward Current (Rated VR-20KHz Square Wave) - 50% duty cycle, Tc (FIG 1)	IFAV	A	30
Surge(non-repetitive)forward current (Rated Load 8.3 Half Mssine Wave-According to JEDEC Method), Ta=25 °C	IFSM	A	290
Storage temperature	TSTG	°C	-40 ~+150
Junction temperature	TJ	°C	-40 ~+150

#### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR3045PT	
Maximum instantaneous forward voltage drop per diode	VF	V	IF=15A	TJ=25°C	0.66
				TJ=125°C	0.6
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	mA		TJ=25°C	0.05
				TJ=125°C	15

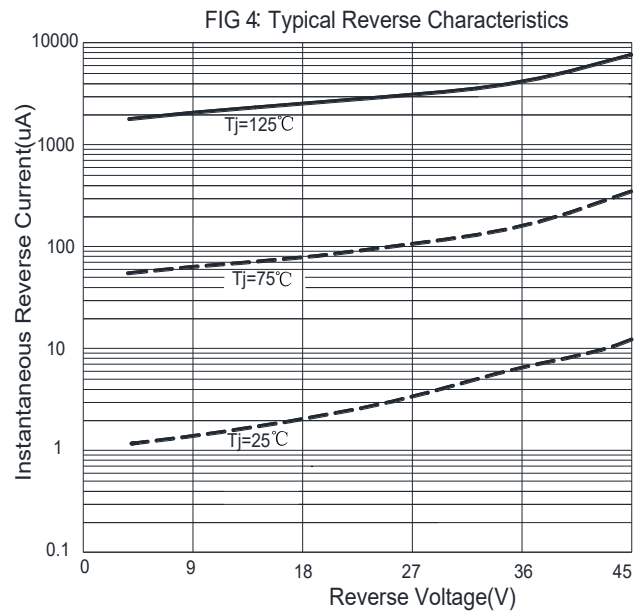
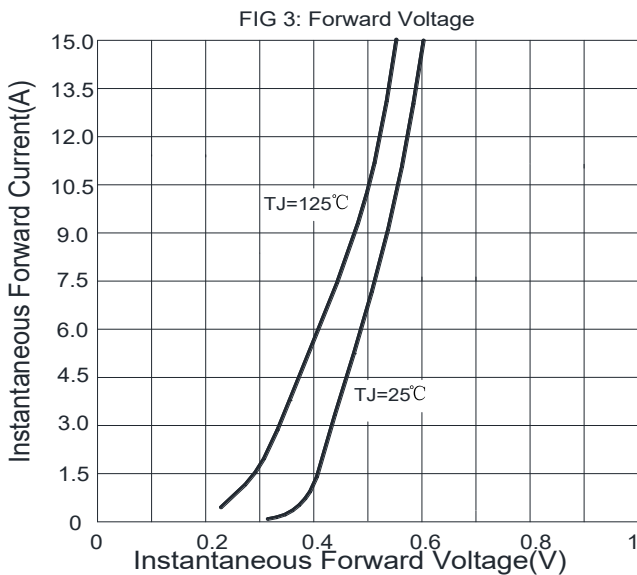
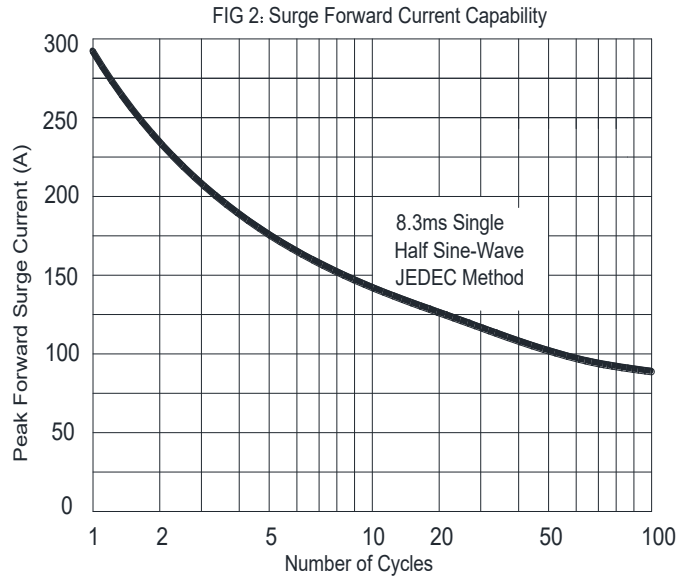
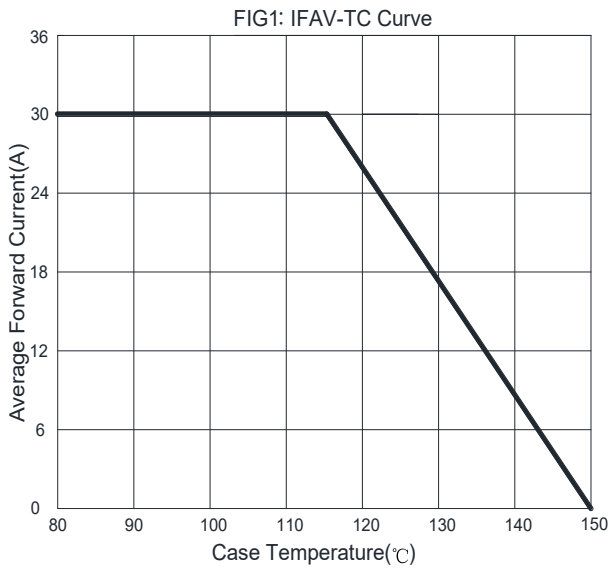
#### ■ THERMAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR3045PT
Typical Thermal Resistance(Per leg)	RθJ-C	/W	0.5

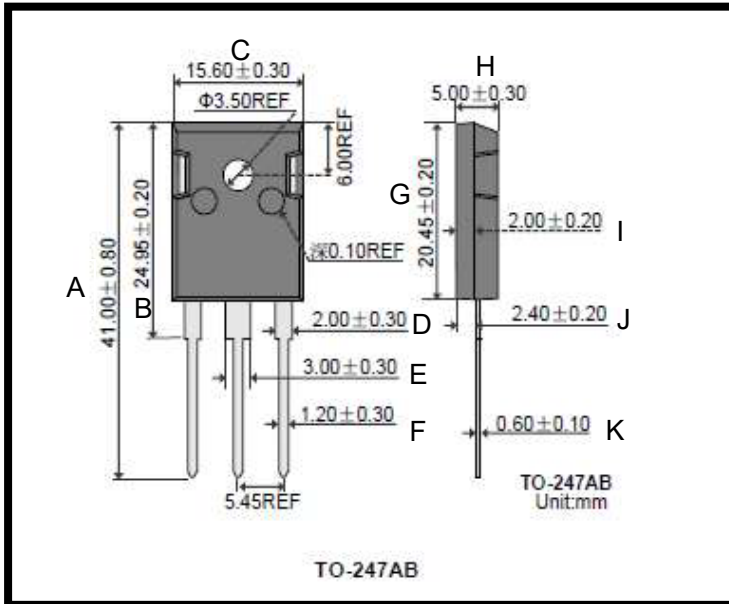
■ **PACKAGING INFORMATION**

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR3045PT	Approximate 5.87	30	360	1800	Tube

■ **CHARACTERISTICS (TYPICAL)**



■ **OUTLINE DIMENSIONS**



TO-247AB		
Dim	Min	Max
A	40.20	41.80
B	24.75	25.15
C	15.30	15.90
D	1.70	2.30
E	2.70	3.30
F	0.90	1.50
G	20.25	20.65
H	4.70	5.30
I	1.80	2.20
J	2.20	2.60
K	0.50	0.70