

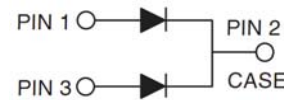
## Dual Common Cathode Schottky Rectifier

### FEATURES

- Low power loss, high efficiency
- Guardring for overvoltage protection
- High surge current capability
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



**TO-247AD (TO-3P)**



### MECHANICAL DATA

**Case:** TO-247AD (TO-3P)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 whisker test

**Polarity:** As marked

**Mounting torque:** 10 in-lbs maximum

**Weight:** 6.1 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)								
PARAMETER	SYMBOL	MBR 6035 PT	MBR 6045 PT	MBR 6050 PT	MBR 6060 PT	MBR 6090 PT	MBR 60100 PT	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	35	45	50	60	90	100	V
Maximum RMS voltage	V <sub>RMS</sub>	24	31	35	42	63	70	V
Maximum DC blocking voltage	V <sub>DC</sub>	35	45	50	60	90	100	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	60						A
Peak repetitive forward current (Rated V <sub>R</sub> , Square wave, 20KHz)	I <sub>FRM</sub>	60						A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	420						A
Peak repetitive reverse surge Current (Note 1)	I <sub>RRM</sub>	1						A
Maximum instantaneous forward voltage (Note 2) I <sub>F</sub> =30A, T <sub>J</sub> =25°C I <sub>F</sub> =30A, T <sub>J</sub> =125°C I <sub>F</sub> =60A, T <sub>J</sub> =25°C	V <sub>F</sub>	0.70 0.60 0.82		0.75 0.65 0.93		0.84 - 0.98		V
Maximum reverse current @ rated VR T <sub>J</sub> =25 °C T <sub>J</sub> =125 °C	I <sub>R</sub>	1 30      20      10						mA
Voltage rate of change,(Rated V <sub>R</sub> )	dV/dt	10,000						V/μs
Typical thermal resistance	R <sub>θJC</sub>	1.2						°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 to +150						°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150						°C

Note 1: 2.0μs Pulse Width, f=1.0KHz

Note 2: Pulse Test : 300μs Pulse Width, 1% Duty Cycle

ORDERING INFORMATION					
PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
MBR60xxPT (Note 1)	Prefix "H"	C0	Suffix "G"	TO-3P	30 / Tube

Note 1: "xx" defines voltage from 35V (MBR6035PT) to 100V (MBR60100PT)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
MBR6060PT C0	MBR6060PT		C0		
MBR6060PT C0G	MBR6060PT		C0	G	Green compound
MBR6060PTH0	MBR6060PT	H	C0		AEC-Q101 qualified

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

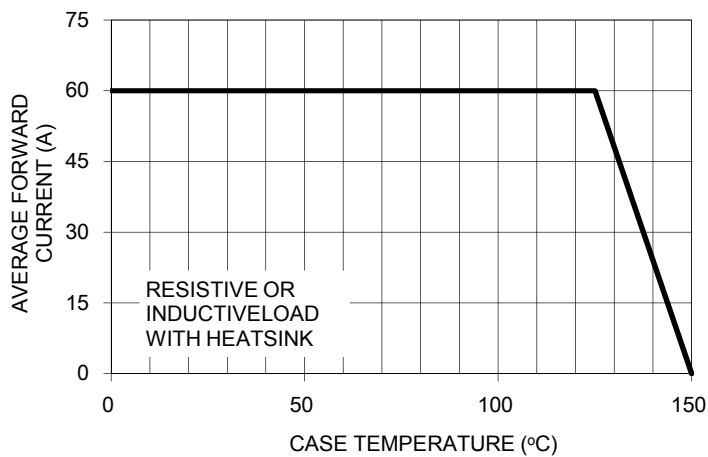


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

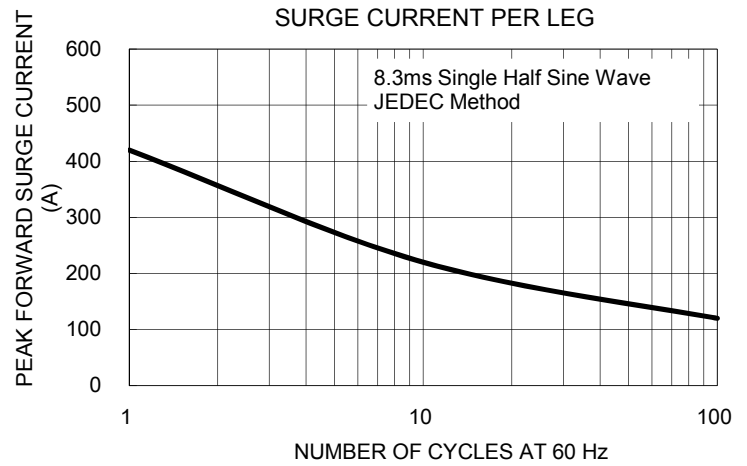


FIG. 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

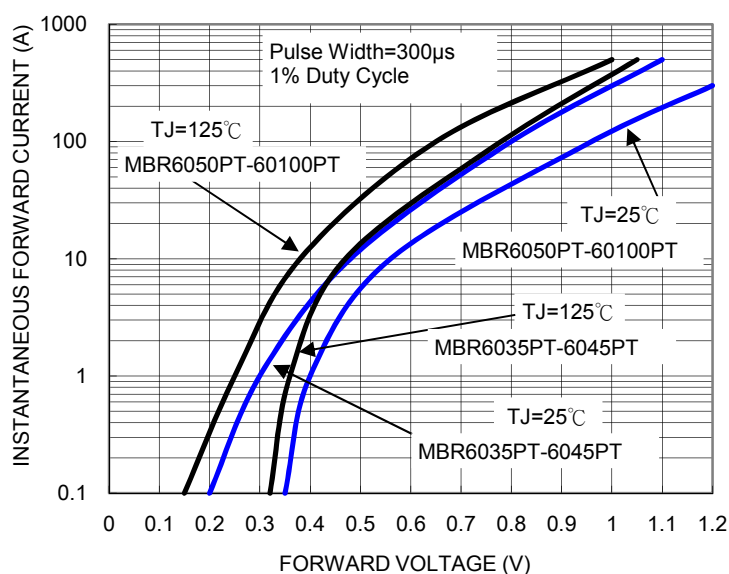


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

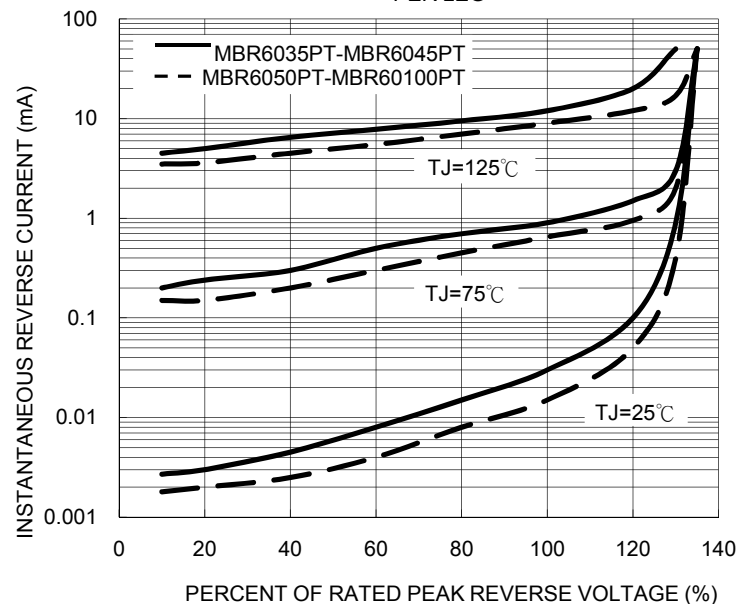


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

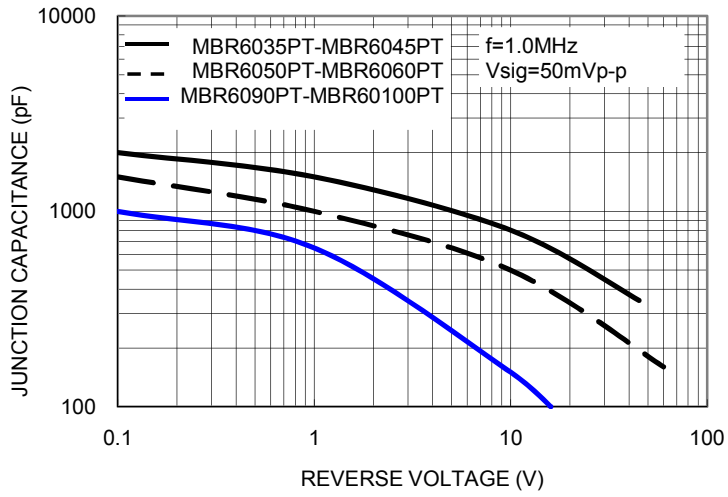
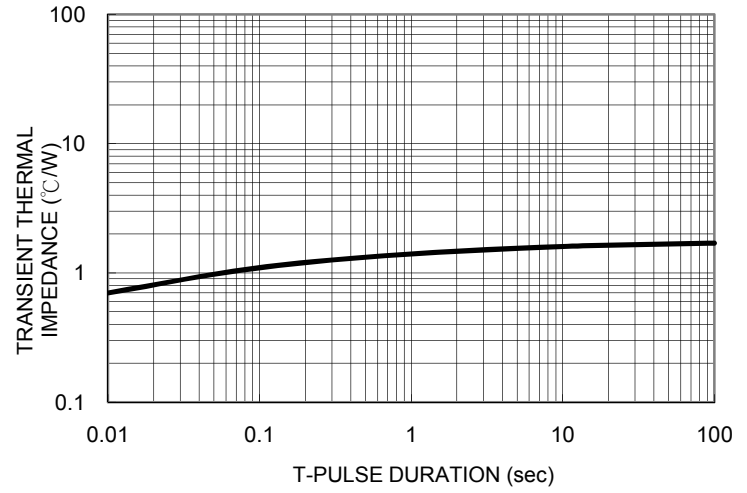
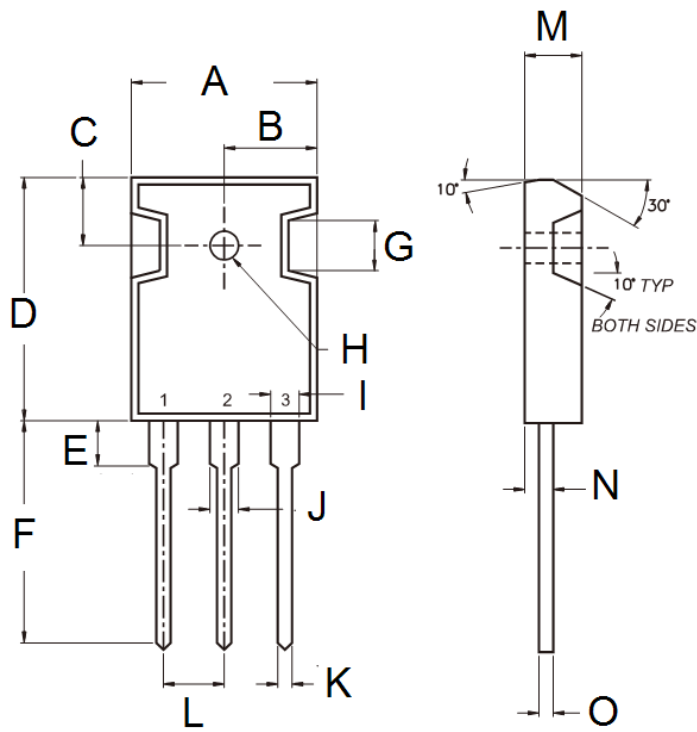


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	15.90	16.40	0.626	0.646
B	7.90	8.20	0.311	0.323
C	5.70	6.20	0.224	0.244
D	20.80	21.30	0.819	0.839
E	3.50	4.10	0.138	0.161
F	19.70	20.20	0.776	0.795
G	-	4.30	-	0.169
H	2.90	3.40	0.114	0.134
I	1.93	2.18	0.076	0.086
J	2.97	3.22	0.117	0.127
K	1.12	1.22	0.044	0.048
L	5.20	5.70	0.205	0.224
M	4.90	5.16	0.193	0.203
N	2.70	3.00	0.106	0.118
O	0.51	0.76	0.020	0.030

MARKING DIAGRAM



- P/N = Marking Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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