



Schottky Barrier Rectifier

FEATURES

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

MECHANICAL DATA

Case: TO-220AC

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: 5 in-lbs maximum **Weight:** 1.88 g (approximately)



PIN 10-

PIN 2 O-





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°ℂ unless otherwise noted)											
PARAMETER	SYMBOL	MBR 1035	MBR 1045	MBR 1050	MBR 1060	MBR 1090	MBR 10100	MBR 10150	MBR 10200	UNIT	
Maximum repetitive peak reverse voltage	V_{RRM}	35	45	50	60	90	100	150	200	V	
Maximum RMS voltage	V_{RMS}	24	31	35	42	63	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	35	45	50	60	90	100	150	200	V	
Maximum average forward rectified current	I _{F(AV)}	10				Α					
Peak repetitive forward current (Rated VR, Square Wave, 20KHz)	I _{FRM}	20					А				
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	150					А				
Peak repetitive reverse surge current (Note 1)	I _{RRM}	1	.0			0.5				Α	
Maximum instantaneous forward voltage (Note 2) $I_F=10A,T_J=25^{\circ}C$ $I_F=10A,T_J=125^{\circ}C$	V _F	0. 0.	70 57	_	80 70	_	85 71	1.	05 -	V	
Maximum reverse current @ rated VR T _J =25 ℃		0.1							0		
T _J =125 ℃	I _R	1	5	1	0		(6		- mA	
Voltage rate of change (Rated V _R)	dV/dt	10000				V/µs					
Typical thermal resistance	$R_{\theta JC}$	3					°C/W				
Operating junction temperature range	TJ	- 55 to +150				οС					
Storage temperature range	T _{STG}	- 55 to +175			οС						
Nata 4: ta = 0.0 ··· 4.0KH=											

Note 1: $tp = 2.0 \mu s$, 1.0KHz

Note 2: Pulse test with PW=300µs, 1% duty cycle

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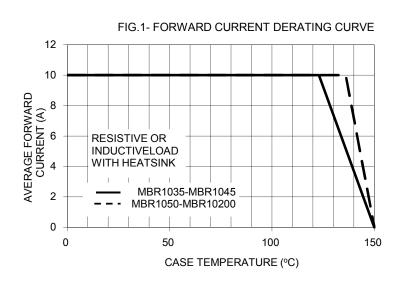
ORDERING INFORMATION						
PART NO.	AEC-Q101 PACKING CODE		GREEN COMPOUND	PACKAGE	PACKING	
	QUALIFIED	. 7.0.1	CODE	. 7.0101		
MBR10xx (Note 1)	Prefix "H"	C0	Suffix "G"	TO-220AC	50 / Tube	

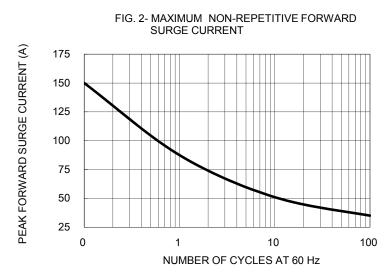
Note 1: "xx" defines voltage from 35V (MBR1035) to 200V (MBR10200)

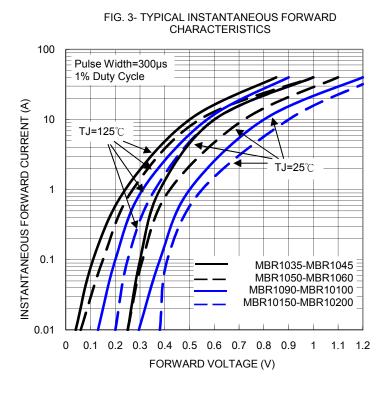
EXAMPLE							
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION		
MBR1060 C0	MBR1060		C0				
MBR1060 C0G	MBR1060		C0	G	Green compound		
MBR1060HC0	MBR1060	Н	C0		AEC-Q101 qualified		

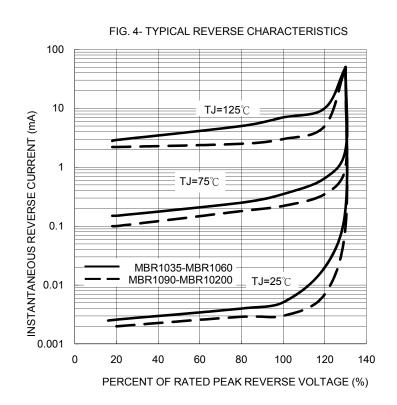
RATINGS AND CHARACTERISTICS CURVES

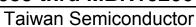
(TA=25°C unless otherwise noted)



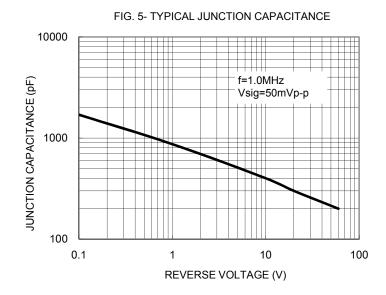


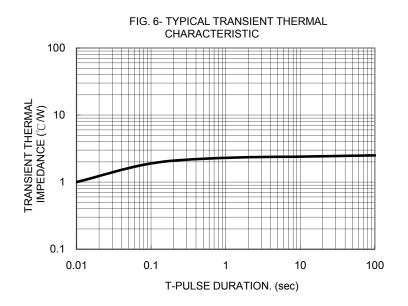




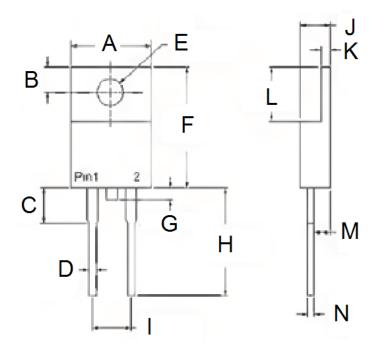








PACKAGE OUTLINE DIMENSIONS



DIM.	Unit	(mm)	Unit (inch)		
DIIVI.	Min Max		Min	Max	
Α	ı	10.50	-	0.413	
В	2.62	3.44	0.103	0.135	
С	2.80	4.20	0.110	0.165	
D	0.68	0.94	0.027	0.037	
Е	3.54	4.00	0.139	0.157	
F	14.60	16.00	0.575	0.630	
G	0.00	1.60	0.000	0.063	
Н	13.19	14.79	0.519	0.582	
I	4.95	5.20	0.195	0.205	
J	4.42	4.76	0.174	0.187	
K	1.14	1.40	0.045	0.055	
L	5.84	6.86	0.230	0.270	
М	2.20	2.80	0.087	0.110	
N	0.35	0.64	0.014	0.025	

MARKING DIAGRAM



P/N = Marking Code G = Green Compound

YWW = Date Code F = Factory Code

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