



# **Dual Common Cathode Schottky Rectifier**

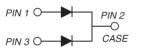
### **FEATURES**

- 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





### **TO-220AB**





### **MECHANICAL DATA**

Case: TO-220AB

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:** 1.8 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)						
DADAMETED	SYMBOL	MBR	MBR	MBR	LINIT	
PARAMETER		20H100CT	20H150CT	20H200CT	UNIT	
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	150	200	V	
Maximum RMS voltage	$V_{RMS}$	70	105	140	V	
Maximum DC blocking voltage	$V_{DC}$	100	150 200		V	
Maximum average forward rectified current	I <sub>F(AV)</sub>	20			Α	
Peak repetitive forward current (Rated VR, Square Wave, 20KHz)	I <sub>FRM</sub>	20			А	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150			А	
Peak repetitive reverse surge current (Note 1)	I <sub>RRM</sub>	1.0 0.5		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 $I_F$ = 20A, $T_J$ =25 $^{\circ}$ C $I_F$ = 20A, $T_J$ =125 $^{\circ}$ C	V <sub>F</sub>	0.85 0.75 0.95 0.85	0.88 0.75 0.97 0.85		V	
Maximum reverse current @ rated VR $T_J$ =25 $^{\circ}$ C $T_J$ =125 $^{\circ}$ C	I <sub>R</sub>	5 2		μA mA		
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000		V/µs		
Typical thermal resistance	$R_{ heta JC}$	1.5			°C/W	
Operating junction temperature range	T <sub>J</sub>	- 55 to +175			οС	
Storage temperature range	T <sub>STG</sub>	- 55 to +175		οС		

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

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



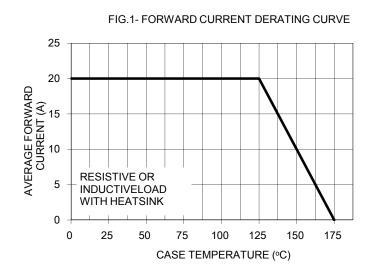
ORDERING INFORMATION						
PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	
MBR20HxxxCT (Note)	Prefix "H"	C0	Suffix "G"	TO-220AB	50 / Tube	

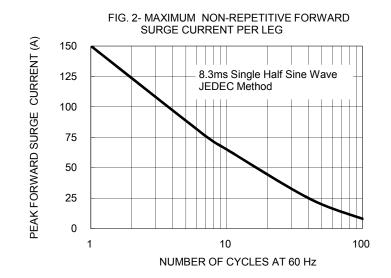
Note 1: "xxx" defines voltage from 100V (MBR20H100CT) to 200V (MBR20H200CT)

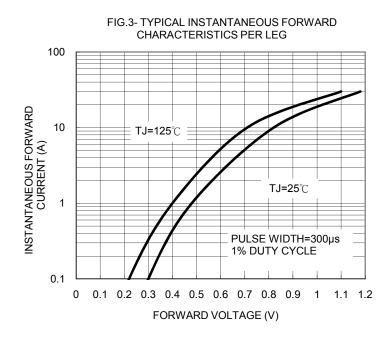
EXAMPLE						
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION	
MBR20H100CT C0	MBR20H100CT		C0			
MBR20H100CT C0G	MBR20H100CT		C0	G	Green compound	
MBR20H100CTHC0	MBR20H100CT	Н	C0		AEC-Q101 qualified	

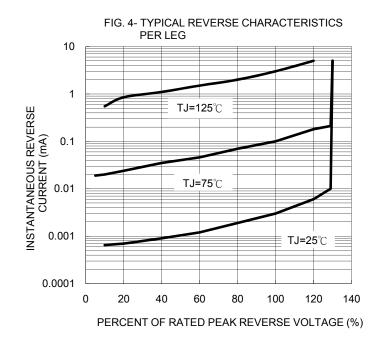
### **RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)



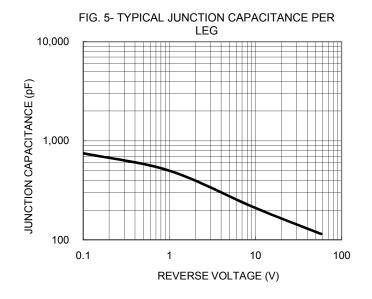


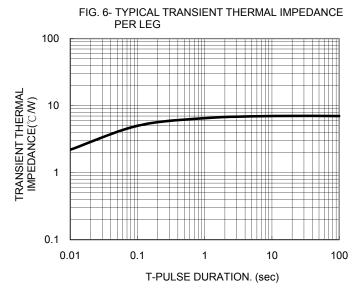




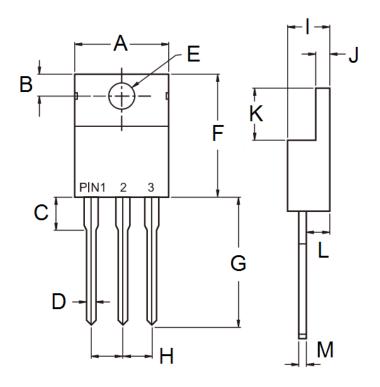








### **PACKAGE OUTLINE DIMENSIONS**



DIM.	Unit	(mm)	Unit (inch)		
DIIVI.	Min	Max	Min	Max	
Α	-	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	13.19	14.79	0.519	0.582	
Н	2.41	2.67	0.095	0.105	
I	4.42	4.76	0.174	0.187	
J	1.14	1.40	0.045	0.055	
K	5.84	6.86	0.230	0.270	
L	2.20	2.80	0.087	0.110	
М	0.35	0.64	0.014	0.025	

### **MARKING DIAGRAM**



P/N = Specific Device Code
G = Green Compound
YWW = Date Code

= Factory Code

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