



Taiwan Semiconductor

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

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)











	SYMBOL	MBR	MBR	MBR	UNIT
PARAMETER		20H100CT	20H150CT	20H200CT	
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 _{F(AV)}		20		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		0.5	Α
Maximum instantaneous forward voltage (Note 2)					
I _F = 10A, T _J =25℃		0.85	0.	88	
I _F = 10A, T _J =125℃	V _F	V _F 0.75 0.75		75	V
I _F = 20A, T _J =25℃		0.95	0.	97	
I _F = 20A, T _J =125℃		0.85	0.85		
Maximum reverse current @ rated VR			•		
TJ=25 ℃	I _R	I _R 5 2			μA
T _J =125 ℃				mA	
Voltage rate of change (Rated V _R)	dV/dt	10000		V/µs	
Typical thermal resistance	R _{θJC}	1.5			°C/W
Operating junction temperature range	TJ	- 55 to +175			°C
Storage temperature range	T _{STG}	- 55 to +175			°C

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

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



MBR20H100CT thru MBR20H200CT

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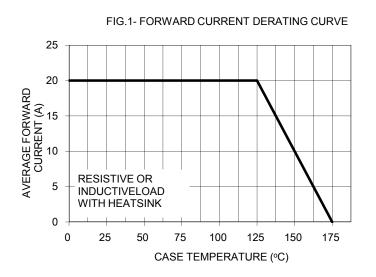
ORDERING INFORMATION						
PART NO.	AEC-Q101	PACKING CODE	GREEN COMPOUND	PACKAGE	PACKING	
	QUALIFIED		CODE	I MORACE		
MBR20HxxxCT (Note)	Prefix "H"	C0	Suffix "G"	TO-220AB	50 / Tube	

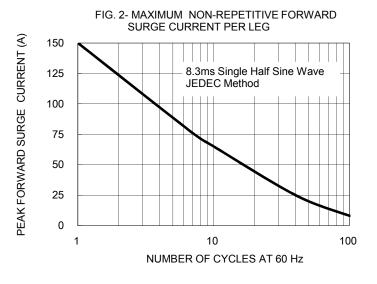
Note 1: "xxx" defines voltage from 100V (MBR20H100CT) to 200V (MBR20H200CT)

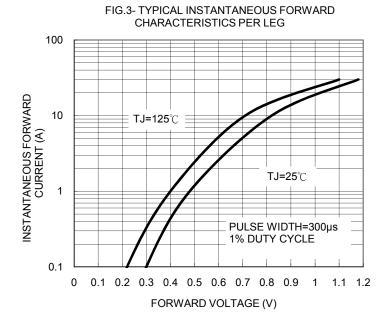
EXAMPLE						
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION	
MBR20H100CT C0	MBR20H100CT		C0			
MBR20H100CT C0G	MBR20H100CT		C0	G	Green compound	
MBR20H100CTHC0	MBR20H100CT	Н	C0		AEC-Q101 qualified	

RATINGS AND CHARACTERISTICS CURVES

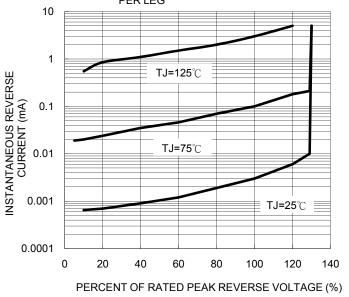
(TA=25 $^{\circ}$ C unless otherwise noted)





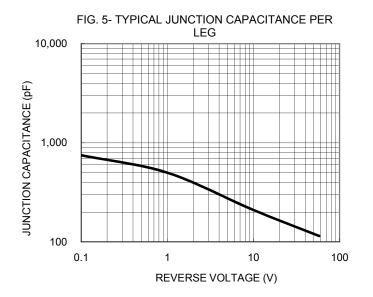


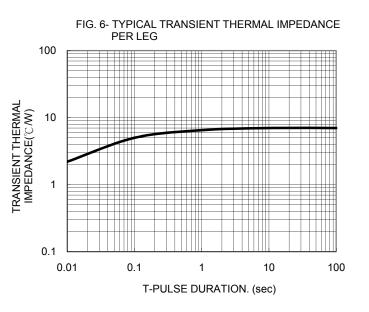




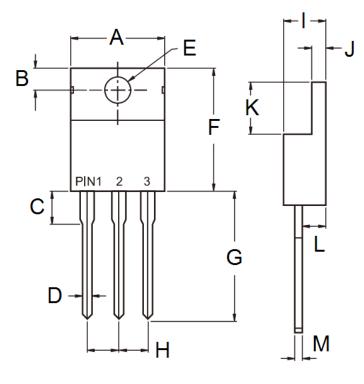


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PACKAGE OUTLINE DIMENSIONS



P/N

G

F

YWW

DIM.	Unit	(mm)	Unit (inch)		
	Min	Max	Min	Max	
А	-	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	
E	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	
К	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



= Specific Device Code

- = Green Compound
- = Date Code
- = Factory Code



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