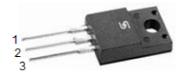




# **Dual Common Cathode Schottky Rectifier**

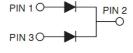
#### **FEATURES**

- 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





#### ITO-220AB





#### **MECHANICAL DATA**

Case: ITO-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:** 1.7 g (approximately)

PARAMETER	SYMBOL	MBRF1	DL100CT	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	100		V
Maximum RMS voltage	$V_{RMS}$	70		V
Maximum DC blocking voltage	$V_{DC}$	100		V
Maximum average forward rectified current	I <sub>F(AV)</sub>	10		А
Peak repetitive forward current (Rated VR, Square wave, 20KHz)	I <sub>FRM</sub>	10		А
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	120		А
Peak repetitive reverse surge current (Note 1)	I <sub>RRM</sub>	1		А
Maximum instantaneous forward voltage (Note 2)		TYP	MAX	
$I_F$ = 5 A, $T_J$ =25 $^{\circ}$ C		0.73	0.76	
I <sub>F</sub> = 5 A, T <sub>J</sub> =125℃	$V_{F}$	0.59	0.65	V
I <sub>F</sub> = 10 A, T <sub>J</sub> =25℃		0.82	0.85	
I <sub>F</sub> = 10 A, T <sub>J</sub> =125°C		0.66	0.71	
Maximum reverse current @ rated VR		TYP	MAX	
T <sub>J</sub> =25 ℃	I <sub>R</sub>	0.3	20	uA
T <sub>J</sub> =125 ℃		0.5	15	mA
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000		V/µs
Typical thermal resistance	$R_{ heta JC}$	5.5		°C/W
Operating junction temperature range	TJ	- 55 to +150		οС
Storage temperature range	T <sub>STG</sub>	- 55 to +150		οС

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

Note 2: Pulse test with PW=300 $\mu$ s, 1% duty cycle



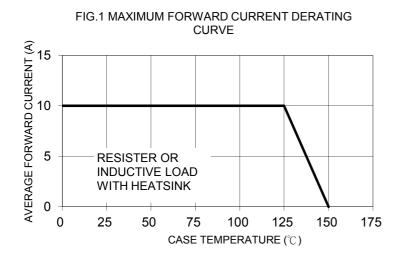


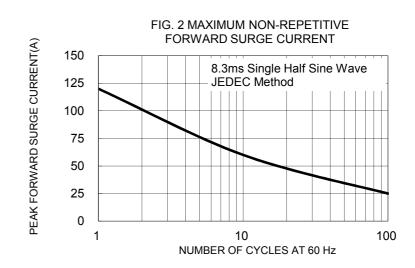
ORDERING INFORMATION						
PART NO.	AEC-Q101	PACKING	GREEN COMPOUND	PACKAGE	PACKING	
	QUALIFIED	CODE	CODE			
MBRF10L100CT	Prefix "H"	C0	Suffix "G"	ITO-220AB	50 / Tube	

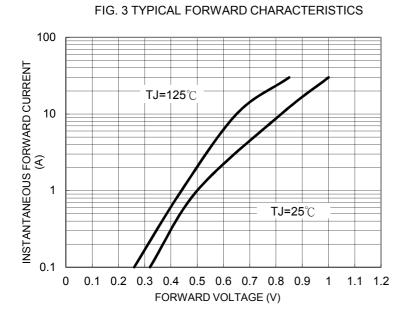
EXAMPLE						
PREFERRED P/N	PART NO.	AEC-Q101	PACKING CODE	GREEN COMPOUND	DESCRIPTION	
		QUALIFIED		CODE		
MBRF10L100CT C0	MBRF10L100CT		C0			
MBRF10L100CT C0G	MBRF10L100CT		C0	G	Green compound	
MBRF10L100CTHC0	MBRF10L100CT	Н	C0		AEC-Q101 qualified	

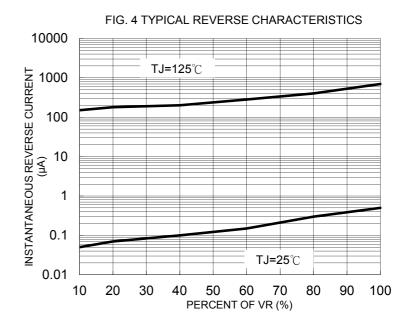
#### **RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)









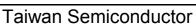




FIG. 5 TYPICAL JUNCTION CAPACITANCE

1000

(bd) 400

1000

f=1.0MHz

Vsig=50mVp-p

10

0.1

1 10 100

REVERSE VOLTAGE (V)

FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

100

100

100

10

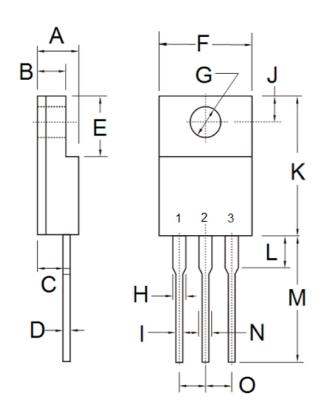
0.1

0.01

1 1 10 100

T-PULSE DURATION(s)

### **PACKAGE OUTLINE DIMENSIONS**



DIM.	Unit	(mm)	Unit (inch)		
	Min	Max	Min	Max	
Α	4.30	4.70	0.169	0.185	
В	2.50	3.16	0.098	0.124	
С	2.30	2.96	0.091	0.117	
D	0.46	0.76	0.018	0.030	
E	6.30	6.90	0.248	0.272	
F	9.60	10.30	0.378	0.406	
G	3.00	3.40	0.118	0.134	
Н	0.95	1.45	0.037	0.057	
I	0.50	0.90	0.020	0.035	
J	2.40	3.20	0.094	0.126	
K	14.80	15.50	0.583	0.610	
L	-	4.10	-	0.161	
М	12.60	13.80	0.496	0.543	
N	-	1.80	-	0.071	
0	2.41	2.67	0.095	0.105	

## **MARKING DIAGRAM**



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

= Factory Code



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