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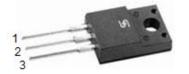




# **Dual Common Cathode Schottky Rectifier**

#### **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)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)									
		MBRF	MBRF	MBRF	MBRF	MBRF	MBRF	MBRF	
PARAMETER	SYMBOL	1535	1545	1550	1560	1590	15100	15150	UNIT
		СТ	СТ	СТ	СТ	СТ	СТ	СТ	
Maximum repetitive peak reverse voltage	$V_{RRM}$	35	45	50	60	90	100	150	V
Maximum RMS voltage	$V_{RMS}$	24	31	35	42	63	70	105	V
Maximum DC blocking voltage	$V_{DC}$	35	45	50	60	90	100	150	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	15						Α	
Peak repetitive forward current (Rated VR, Square Wave, 20KHz)	I <sub>FRM</sub>	15					Α		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150					Α		
Peak repetitive reverse surge current (Note 1)	I <sub>RRM</sub>		1 0.5				Α		
Maximum instantaneous forward voltage (Note 2) I <sub>F</sub> = 7.5 A, T <sub>J</sub> =25°ℂ			_	0.	75	0.	92	0.95	
I <sub>F</sub> = 7.5 A, T <sub>J</sub> =125℃	$V_{F}$	0.	57	0.	65	0.	82	0.92	V
I <sub>F</sub> = 15 A, T <sub>J</sub> =25℃		0.	84		-		_	_	
I <sub>F</sub> = 15 A, T <sub>J</sub> =125℃		0.	72		_		_	-	
Maximum reverse current @ rated VR T₁=25 °C		0.5		0.3		0.1		4	
T <sub>J</sub> =125 ℃	I <sub>R</sub>	10		7.5		5			mA
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000			V/µs				
Typical thermal resistance	$R_{\theta JC}$	3.5				°C/W			
Operating junction temperature range	TJ	- 55 to +150			оС				
Storage temperature range	T <sub>STG</sub>	- 55 to +150				оС			
Note 1: tp = 2.0 us. 1.0KHz		1							

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

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

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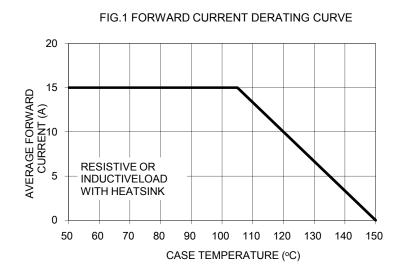
ORDERING INFORMATION					
PART NO.	AEC-Q101	PACKING CODE	GREEN COMPOUND	PACKAGE	PACKING
	QUALIFIED		CODE		
MBRF15xxCT (Note 1)	Prefix "H"	C0	Suffix "G"	ITO-220AB	50 / Tube

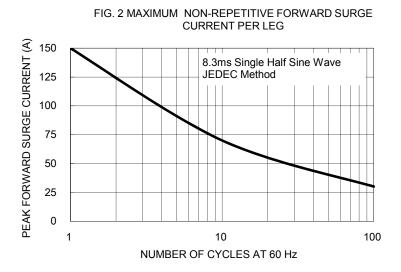
Note 1: "xx" defines voltage from 35V (MBRF1535CT) to 150V (MBRF15150CT)

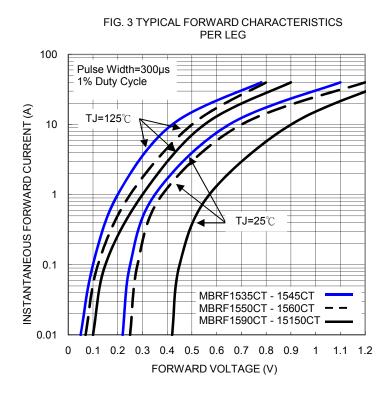
EXAMPLE						
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION	
MBRF1560CT C0	MBRF1560CT		C0			
MBRF1560CT C0G	MBRF1560CT		C0	G	Green compound	
MBRF1560CTHC0	MBRF1560CT	Н	C0		AEC-Q101 qualified	

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

(TA=25°C unless otherwise noted)







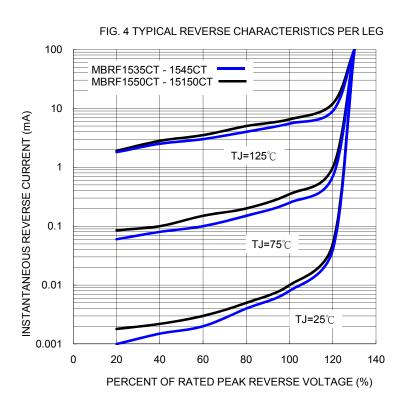






FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

10000

(a)

1000

MBRF1535CT - 1560CT

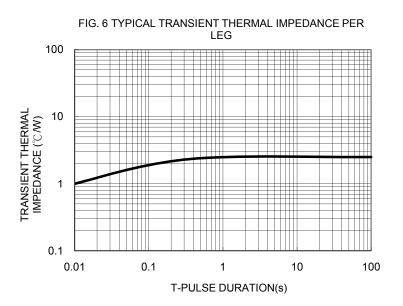
MBRF1590CT - 15150CT

10

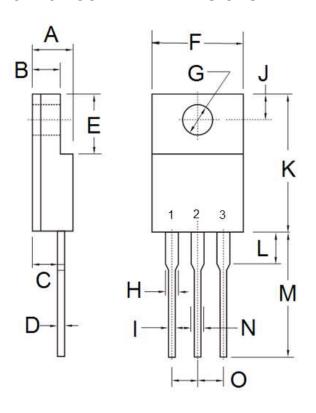
0.1

1 10 100

REVERSE VOLTAGE (V)



## **PACKAGE OUTLINE DIMENSIONS**



DIM.	Unit	(mm)	Unit (inch)		
DIIVI.	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	
Е	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 F = Factory Code





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