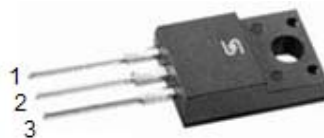


FEATURES

- 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 _A =25°C unless otherwise noted)											
PARAMETER	SYMBOL	MBRF 2035 CT	MBRF 2045 CT	MBRF 2050 CT	MBRF 2060 CT	MBRF 2080 CT	MBRF 2090 CT	MBRF 20100 CT	MBRF 20150 CT	MBRF 20200 CT	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	35	45	50	60	80	90	100	150	200	V
Maximum RMS voltage	V _{RMS}	24	31	35	42	56	63	70	105	140	V
Maximum DC blocking voltage	V _{DC}	35	45	50	60	80	90	100	150	200	V
Maximum average forward rectified current	I _{F(AV)}	20									A
Peak repetitive forward current (Rated VR, Square wave, 20KHz)	I _{FRM}	20									A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	150									A
Peak repetitive reverse surge current (Note 1)	I _{RRM}	1		0.5						A	
Maximum instantaneous forward voltage (Note 2) I _F = 10 A, T _J =25°C I _F = 10 A, T _J =125°C I _F = 20 A, T _J =25°C I _F = 20 A, T _J =125°C	V _F	0.80 0.57 0.84 0.72		0.80 0.70 0.95 0.85		0.80 0.65 1.00 0.75	0.85 0.75 0.95 0.85		0.95 0.85 1.05 0.95		V
Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C	I _R	0.1									mA
		15		10		30	5		2		
Voltage rate of change (Rated V _R)	dV/dt	10000									V/μs
Isolation voltage from terminals to heatsink with t=1.0 min	V _{AC}	1500									V
Typical thermal resistance	R _{θJC}	1.5				3.5					°C/W
Operating junction temperature range	T _J	- 55 to +150									°C
Storage temperature range	T _{STG}	- 55 to +150									°C

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

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

ORDERING INFORMATION

PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
MBRF20xxCT (Note 1)	Prefix "H"	C0	Suffix "G"	ITO-220AB	50 / Tube

Note 1: "xx" defines voltage from 35V (MBRF2035CT) to 200V (MBRF20200CT)

EXAMPLE

PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND	DESCRIPTION
MBRF2060CT C0	MBRF2060CT		C0		
MBRF2060CT C0G	MBRF2060CT		C0	G	Green compound
MBRF2060CTHC0	MBRF2060CT	H	C0		AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

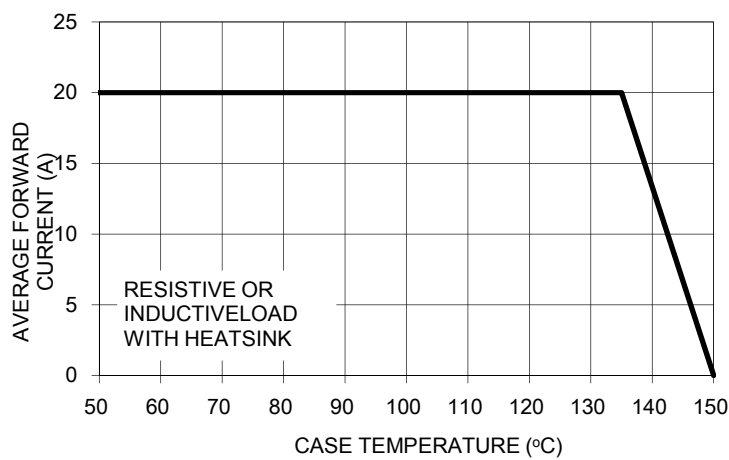
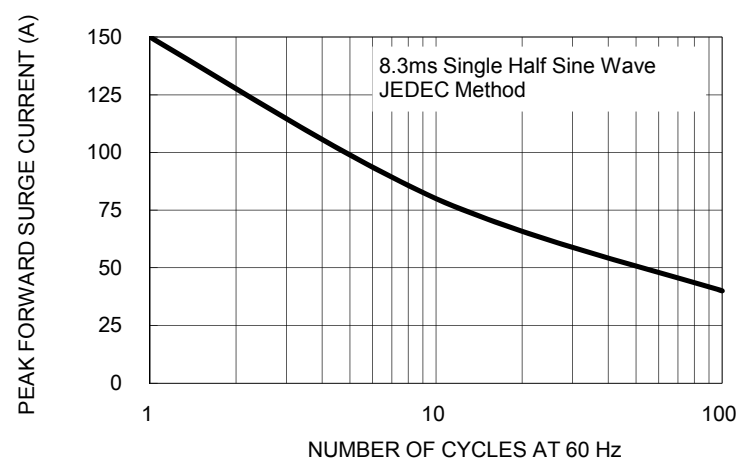
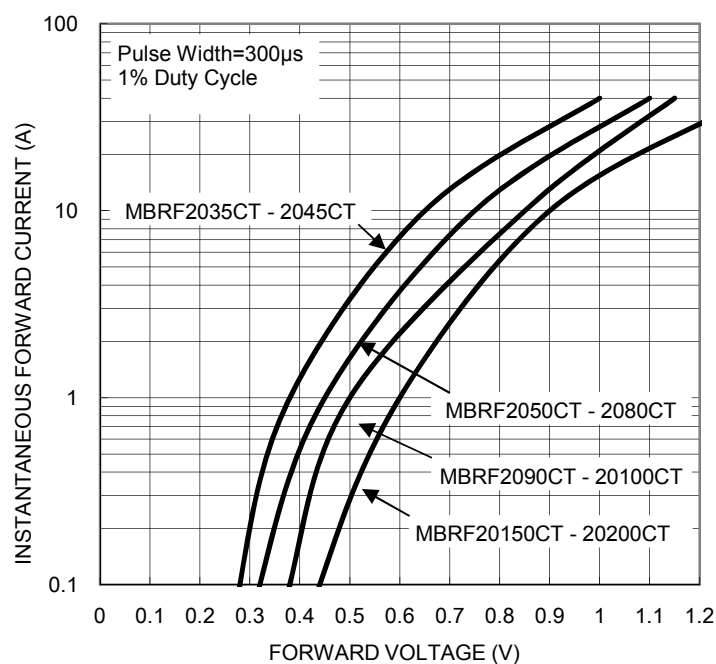
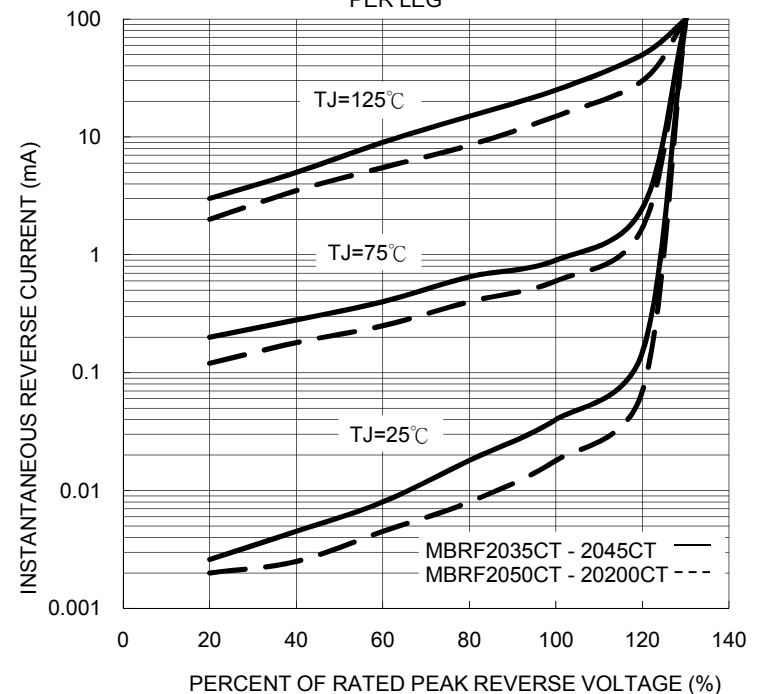
FIG. 1 FORWARD CURRENT DERATING CURVE

FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG


FIG. 5 TYPICAL JUNCTION CAPACITANCE
PER LEG

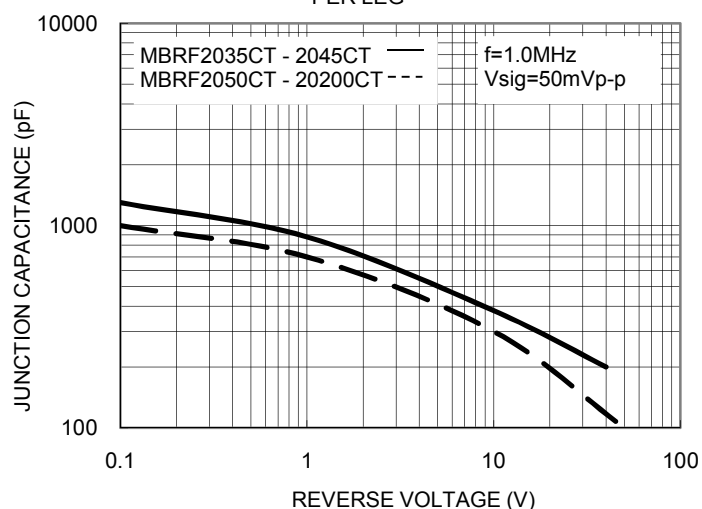
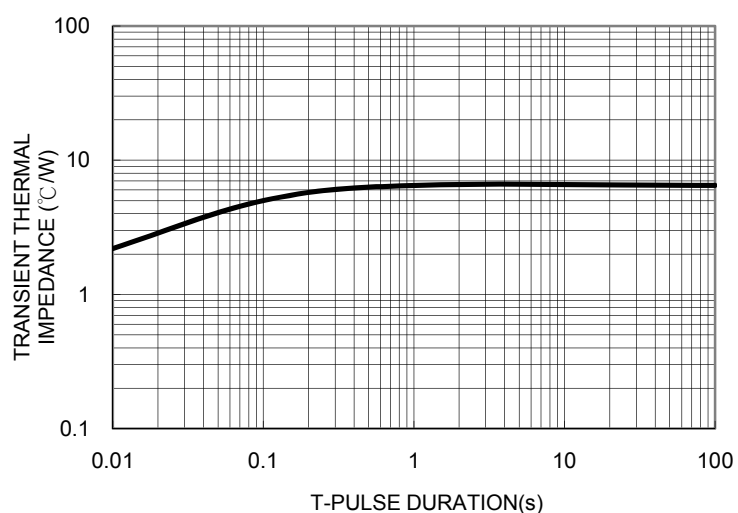
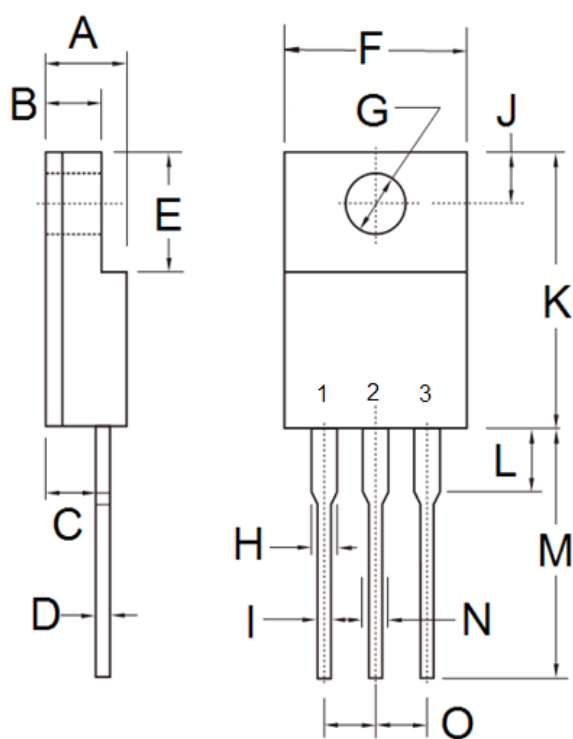


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE
PER LEG

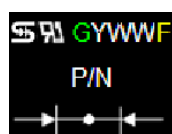


PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.169	0.185
B	2.50	3.16	0.098	0.124
C	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
H	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
M	12.60	13.80	0.496	0.543
N	-	1.80	-	0.071
O	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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