

15A, 45V - 200V Dual Common Cathode Schottky Rectifiers

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



ITO-220AB



MECHANICAL DATA

Case: ITO-220AB

Molding compound, UL flammability classification rating 94V-0

Packing code with suffix "G" means green compound (halogen-free)

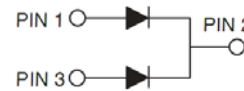
Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A 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 1545 CT-Y	MBRF 1560 CT-Y	MBRF 15100 CT-Y	MBRF 15150 CT-Y	MBRF 15200 CT-Y	UNIT
Marking code		MBRF15 45CT	MBRF15 60CT	MBRF15 100CT	MBRF15 150CT	MBRF15 200CT	
Maximum repetitive peak reverse voltage	V _{RRM}	45	60	100	150	200	V
Maximum RMS voltage	V _{RMS}	31	42	70	105	140	V
Maximum DC blocking voltage	V _{DC}	45	60	100	150	200	V
Maximum average forward rectified current	I _{F(AV)}	15					A
Peak repetitive forward current (Rated V _R , Square Wave, 20KHz)	I _{FRM}	15					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 _{RSM}	1	0.5				A
Maximum instantaneous forward voltage (Note 2) I _F = 7.5 A, T _J =25°C I _F = 7.5 A, T _J =125°C I _F = 15 A, T _J =25°C I _F = 15 A, T _J =125°C	V _F	- 0.57 0.84 0.72	0.75 0.65 - -	0.92 0.82 - -	0.95 0.92 - -		V
Maximum reverse current @ rated V _R T _J =25°C T _J =125°C	I _R	0.5 10	0.3 7.5	0.1 5			mA
Voltage rate of change (Rated V _R)	dV/dt	10000					V/μs
Typical thermal resistance	R _{θJC}	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: tp = 2.0 μs, 1.0KHz

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

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
MBRF15xxCT-Y (Note 1)	C0	G	ITO-220AB	50 / Tube

Note 1: "xx" defines voltage from 45V (MBRF1545CT-Y) to 200V (MBRF15200CT-Y)

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
MBRF1560CT-Y C0G	MBRF1560CT-Y	C0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

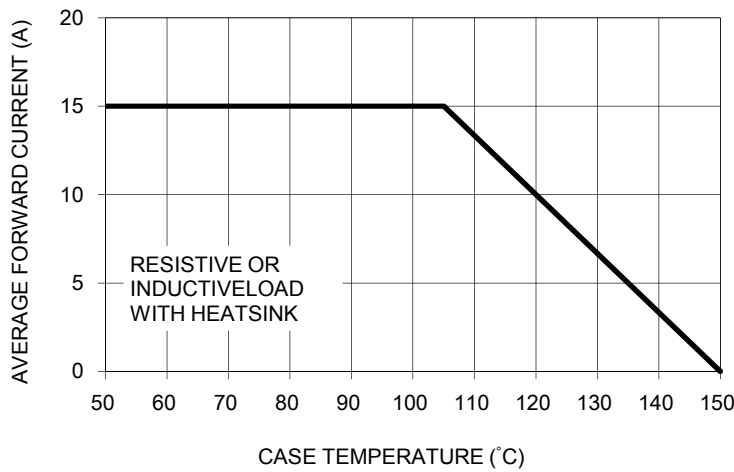


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

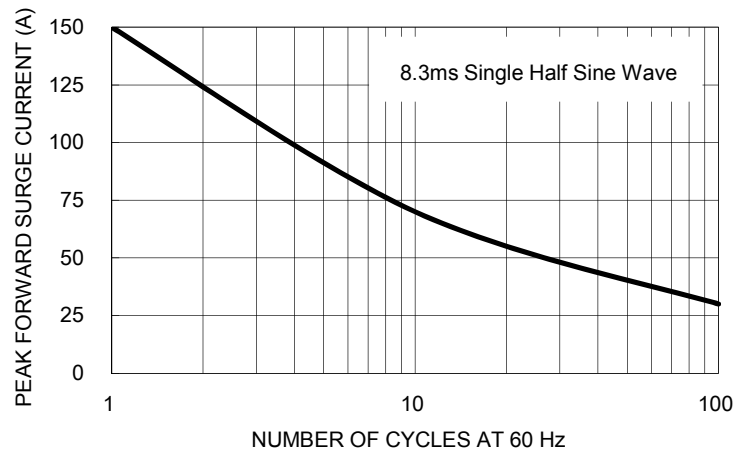


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

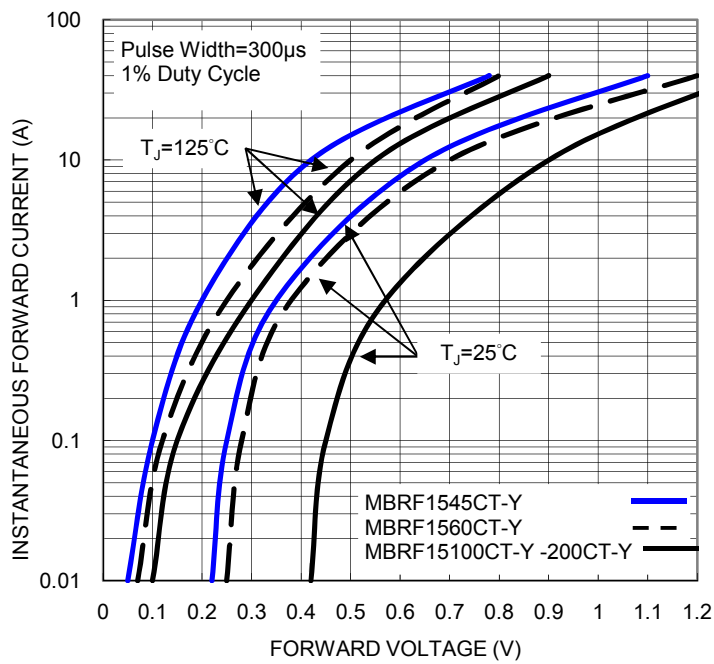


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

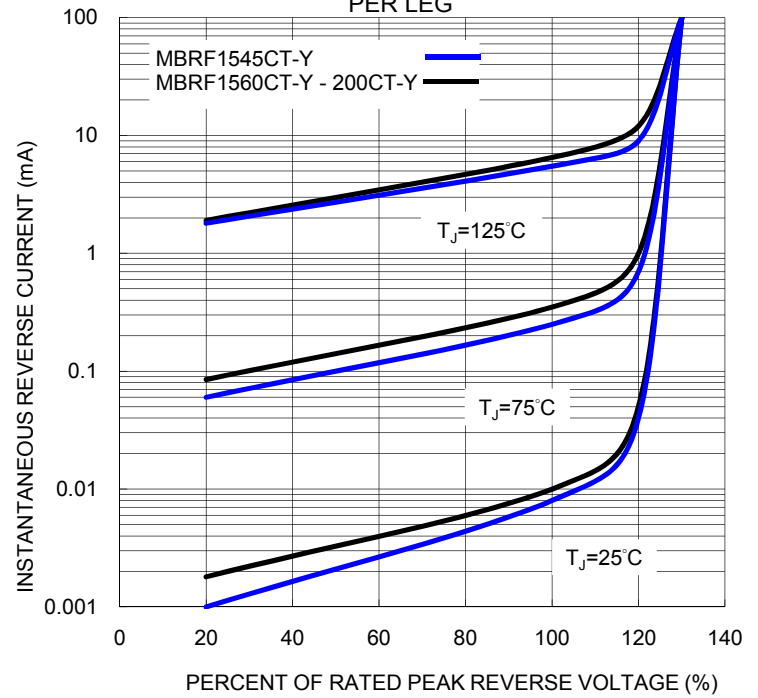


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

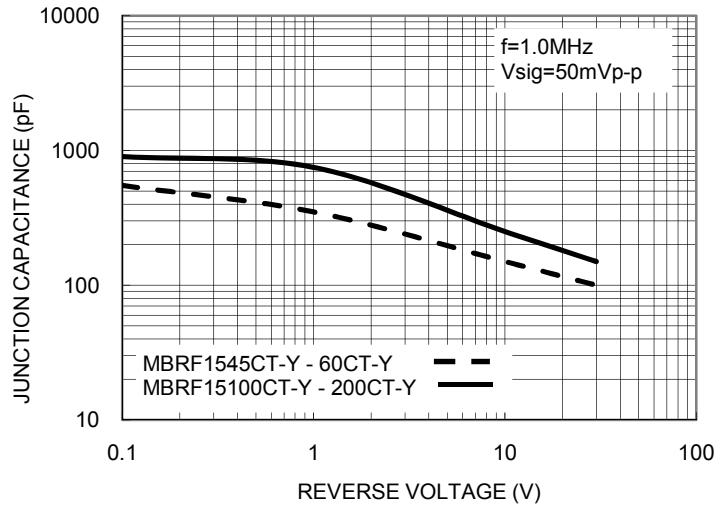
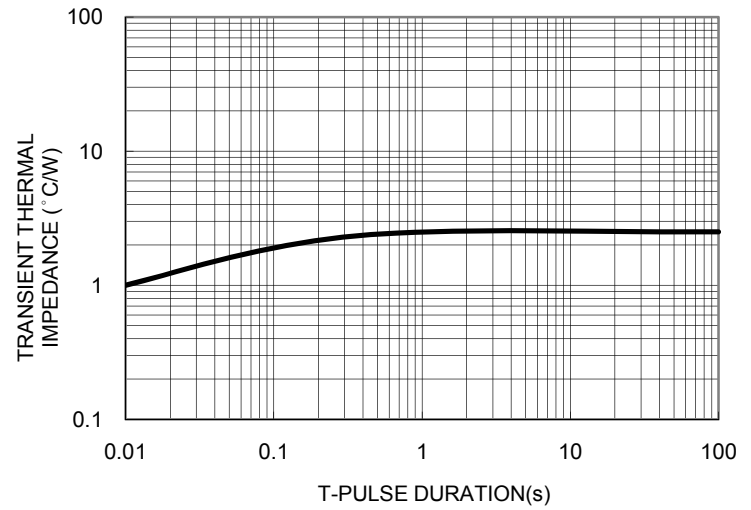
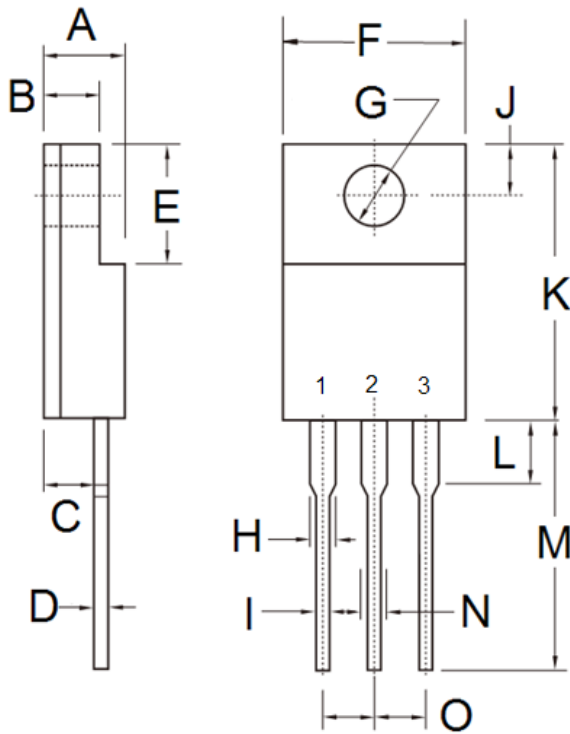


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



PACKAGE OUTLINE DIMENSIONS

ITO-220AB



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 = Marking Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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