

MBR10100CT(LS)

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 10 Amperes

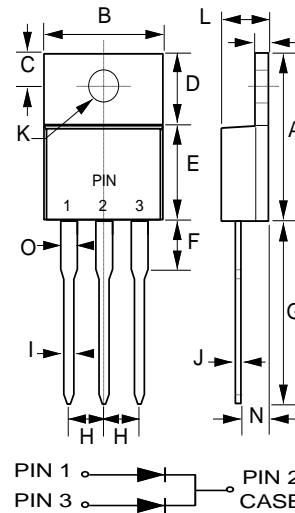
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low V_F
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- IEC 61000-4-2, level 4 (ESD), >15KV (air)
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: TO-220AB molded plastic
- Polarity: As marked on the body
- Weight: 0.08 ounces, 2.24 grams
- Mounting position: Any
- Max. mounting torque = 0.5N.m (5.1Kgf.cm)

TO-220AB



TO-220AB		
DIM	MIN	MAX
A	14.40	15.20
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	--	4.20
G	12.70	14.73
H	2.29	2.79
I	0.51	1.14
J	0.30	0.64
K	3.53φ	4.09φ
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92
O	1.14	1.70

All dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

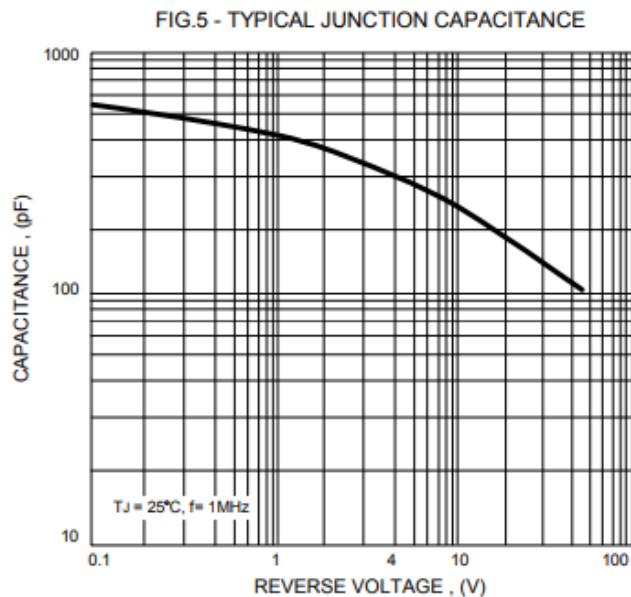
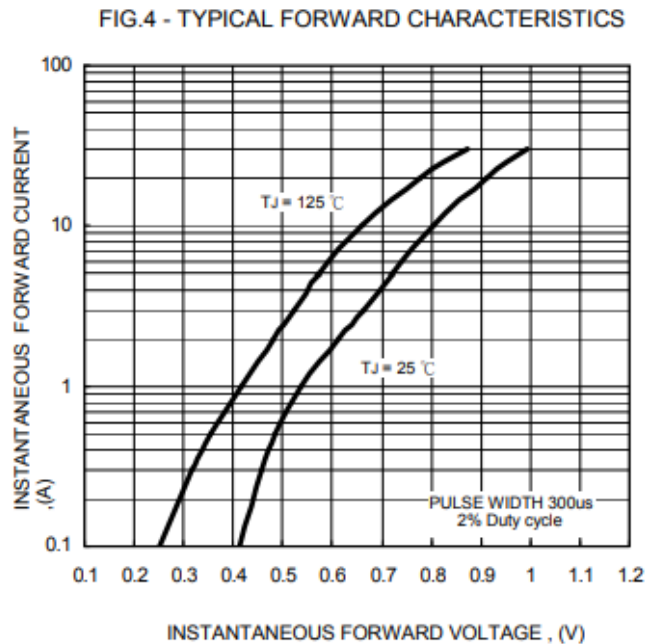
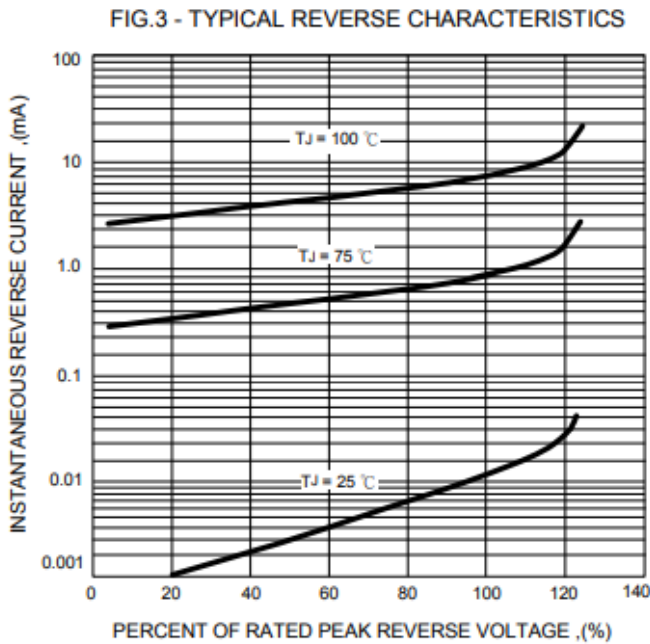
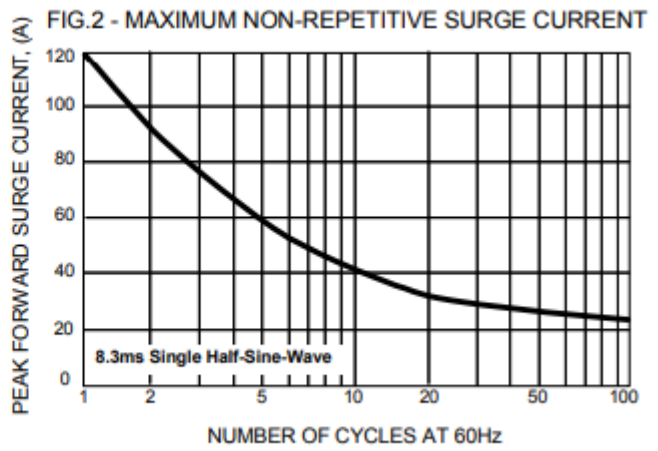
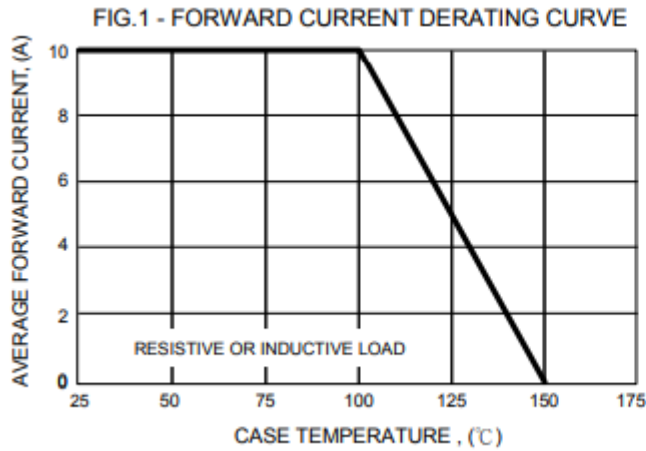
Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage @ $I_R=100\mu A$	V_{RRM}	100	V
Maximum RMS Voltage @ $I_R=100\mu A$	V_{RMS}	70	
Maximum DC Blocking Voltage @ $I_R=100\mu A$	V_{DC}	100	V
Maximum Average Forward Rectified Current at $T_C=100^\circ C$ (See Fig.1)	$I_{(AV)}$	10	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	120	A
Voltage Rate of Change (Rated V_R)	dv/dt	10000	V/ μS
Maximum Forward Voltage (Note 4)	V_F	0.85 0.75 0.95 0.85	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.01 15	mA
Typical Junction Capacitance, per Element (Note 5)	C_j	300	pF
Typical Thermal Resistance (Note 6)	$R_{\theta JC}$	3.0	$^\circ C/W$
Operating Temperature Range	T_J	-55 to +150	$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +175	$^\circ C$

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. 300us pulse width, 2% duty cycle.
5. Measured at 1.0MHz and applied reverse voltage of 4.0 V_{DC} .
6. Thermal Resistance Junction to Case.

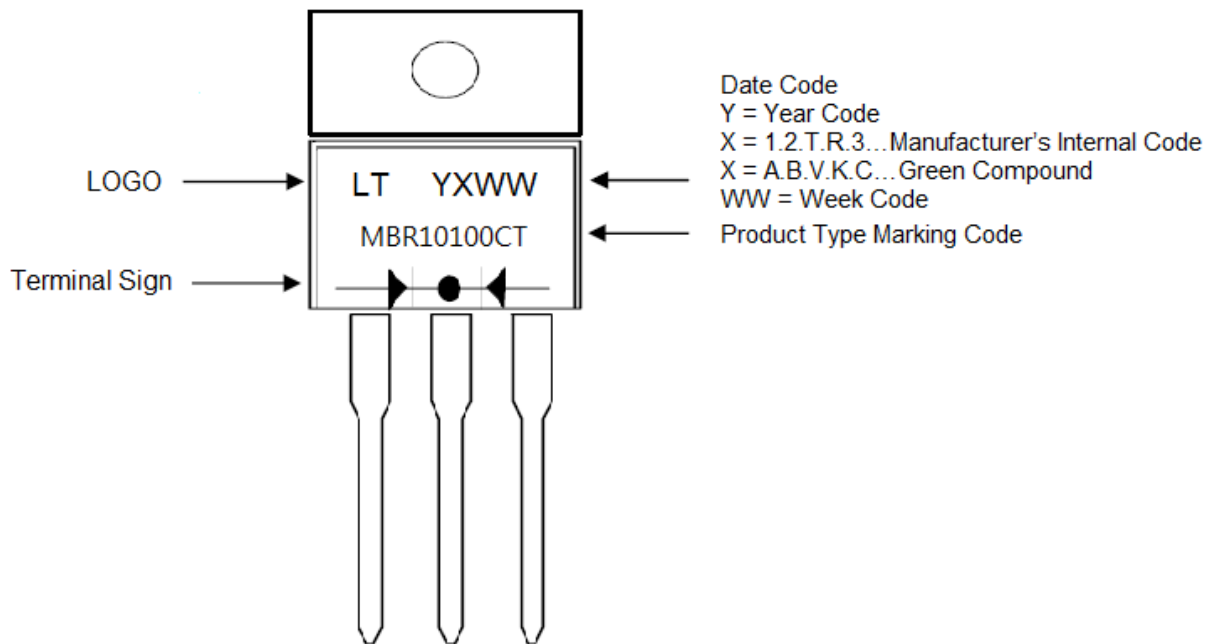
RATING AND CHARACTERISTIC CURVES
MBR10100CT



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
MBR10100CT-LS	TO-220AB	50 pcs	Tube

Marking Information:



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