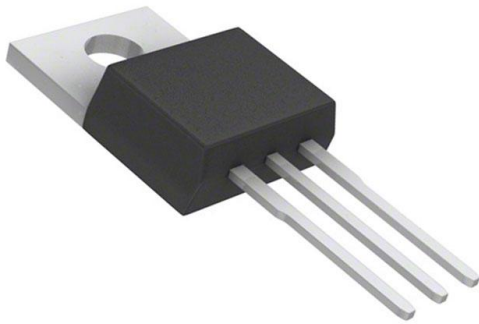


MBR20150CT Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	MBR20150CT-DG
Manufacturer	Littelfuse Inc.
Manufacturer Product Number	MBR20150CT
Description	DIODE ARR SCHOT 150V 10A TO220AB
Detailed Description	Diode Array 1 Pair Common Cathode 150 V 10A Through Hole TO-220-3

This model MBR20150CT is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

 [Request a Quote](#)

 [Datasheet Search](#)



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

MBR20150CT

Series:

MBR

Diode Configuration:

1 Pair Common Cathode

Voltage - DC Reverse (Vr) (Max):

150 V

Voltage - Forward (Vf) (Max) @ If:

900 mV @ 10 A

Current - Reverse Leakage @ Vr:

500 nA @ 150 V

Mounting Type:

Through Hole

Supplier Device Package:

TO-220AB

Manufacturer:

Littelfuse Inc.

Product Status:

Active

Technology:

Schottky

Current - Average Rectified (Io) (per Diode):

10A

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Operating Temperature - Junction:

-55°C ~ 175°C

Package / Case:

TO-220-3

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0080

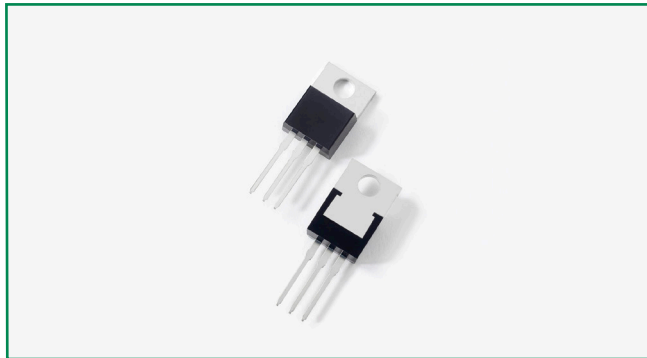
Moisture Sensitivity Level (MSL):

1 (Unlimited)

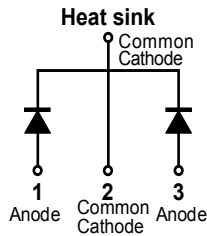
ECCN:

EAR99

MBR20150CT



Pin out



Description

Littelfuse MBR series Schottky Barrier Rectifier is designed to meet the general requirements of commercial applications by providing high temperature, low leakage and low V_F products.

It is suitable for high frequency switching mode power supply, free-wheeling diodes and polarity protection diodes.

Features

- High junction temperature capability
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Common cathode configuration in TO-220AB package
- Low forward voltage drop

Applications

- Switching mode power supply
- DC/DC converters
- Free-wheeling diodes
- Polarity protection diodes

Maximum Ratings

Parameters	Symbol	Test Conditions	Max	Unit
Peak Inverse Voltage	V_{RWM}	-	150	V
Maximum RMS Voltage	V_{RMS}	-	105	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_c = 125^\circ\text{C}$, rectangular wave form	10 (Per leg) 20 (Per device)	A
Peak Repetitive Surge current (Rated V_R , Square Wave, 20KHz)	I_{RRM}	-	1.0	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	150	A

Electrical Characteristics

Parameters	Symbol	Test Conditions	Max	Unit
Forward Voltage Drop (per leg) *	V_{F1}	@10A, Pulse, $T_J = 25^\circ\text{C}$	0.90	V
	V_{F2}	@10A, Pulse, $T_J = 125^\circ\text{C}$	0.83	
Reverse Current (per leg) *	I_{R1}	@ $V_R = \text{rated } V_R, T_J = 25^\circ\text{C}$	0.50 Max	mA
	I_{R2}	@ $V_R = \text{rated } V_R, T_J = 125^\circ\text{C}$	0.01 Typ	
Junction Capacitance (per leg)	C_T	@ $V_R = 5V, T_c = 25^\circ\text{C}, f_{SIG} = 1\text{MHz}$	400	pF
Series Inductance (per leg)	L_S	Measured lead to lead 5 mm from package body	8.0	nH
Voltage Rate of Change	dv/dt		10,000	V/ μs

* Pulse Width < 300 μs , Duty Cycle < 2%

Thermal-Mechanical Specifications

Parameters	Symbol	Test Conditions	Max	Unit
Junction Temperature	T_J		-55 to +175	°C
Storage Temperature	T_{stg}		-55 to +150	°C
Maximum Thermal Resistance Junction to Case(per leg)	R_{thJC}	DC operation	1.5	°C/W
Maximum Thermal Resistance, Case to Heat Sink	R_{thCS}	Mounting surface, smooth and greased(only for TO-220)	0.5	°C/W
Approximate Weight	wt		2	g
Case Style		TO-220AB		

Figure 1: Typical Forward Characteristics

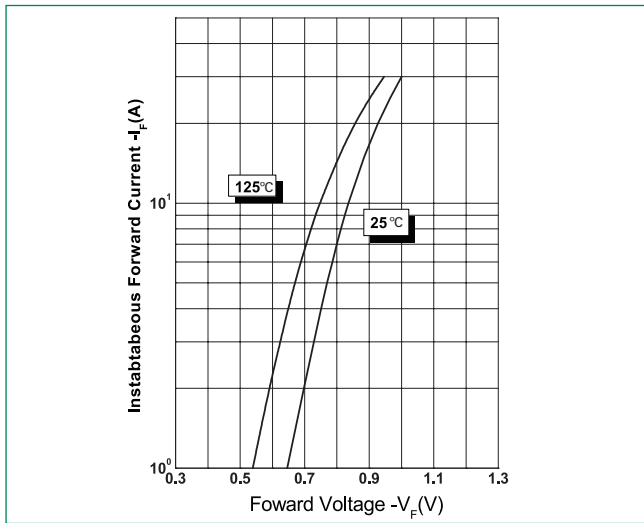


Figure 2: Typical Reverse Characteristics

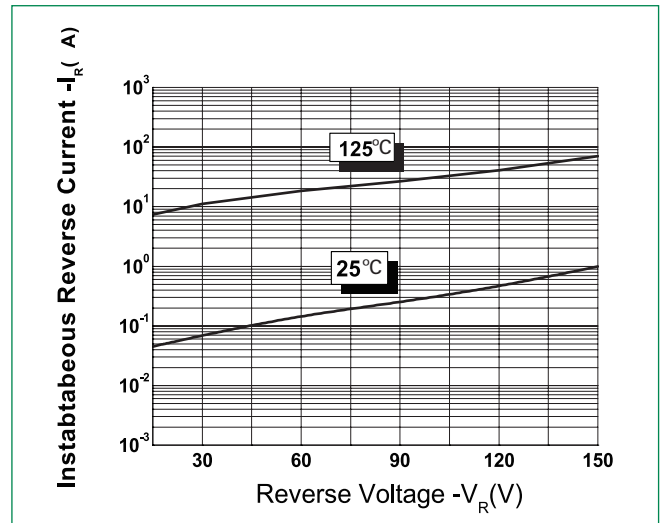
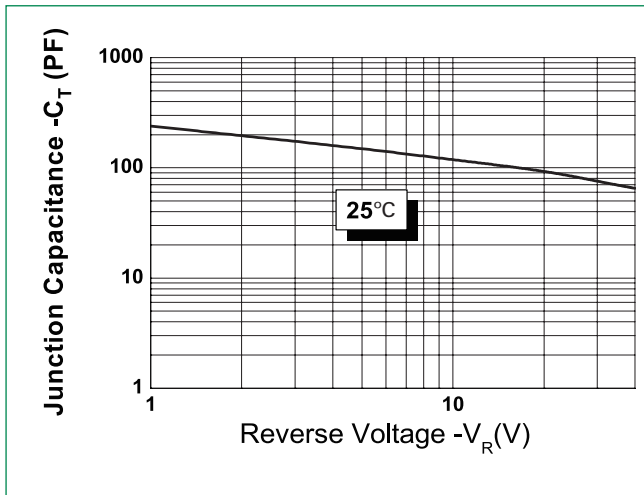
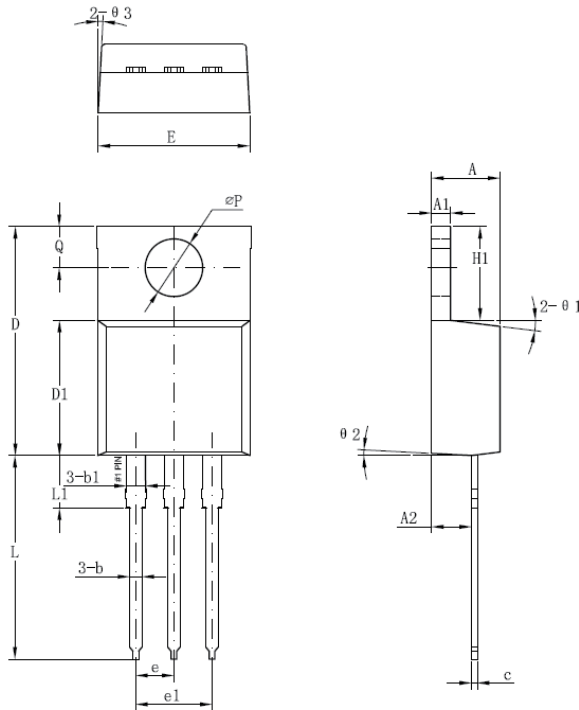


Figure 3: Typical Junction Capacitance



Dimensions- TO-220AB



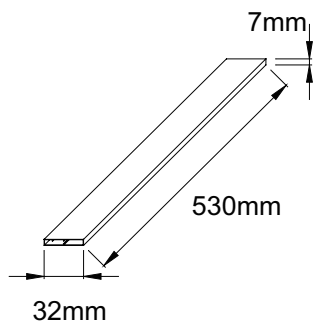
Symbol	Millimeters	
	Min	Max
A	3.56	4.83
A1	0.51	1.40
A2	2.03	2.92
b	0.38	1.02
b1	1.14	1.78
c	0.31*	0.61
D	14.22	16.51
D1	8.38	9.15*
E	9.65	10.67
e	2.54	-
e1	4.98*	-
H1	5.84	6.86
L	12.70	14.73
L1	-	6.35
øP	3.53	4.09
Q	2.54	3.43

Footnote *: The spec. does not comply with JEDEC spec.

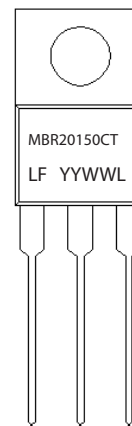
Packing Options

Part Number	Marking	Packing Mode	M.O.Q
MBR20150CT	MBR20150CT	50pcs /Tube	1000

Tube Specification



Part Numbering and Marking System



- MBR = Device Type
- 20 = Forward Current (20A)
- 150 = Reverse Voltage (150V)
- CT = Configuration
- LF = Littelfuse
- YY = Year
- WW = Week
- L = Lot Number

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we strictly control the quality of products and services. Welcome your RFQ to

Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.