

MBR10120

Preliminary

DIODE

TO-220

TO-220F

TO-277

10A SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

The UTC **MBR10120** is a 10A schottky barrier rectifier, it uses UTC's advanced technology to provide the customers with high surge capability, high efficiency, high current capability, low power loss and low forward voltage drop, etc.

The UTC **MBR10120** is suitable for free wheeling and polarity protection, etc.

FEATURES

* Low Reverse Current

- * Low Stored Charge, Majority Carrier Conduction
- * Low Power Loss/High Efficiency
- * Highly Stable Oxide Passivated Junction

SYMBOL

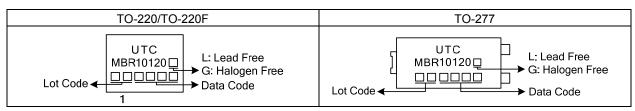
ORDERING INFORMATION

Ordering Number		Daakaga	Pin Assignment			Decking	
Lead Free	Halogen Free	Package	1	2	3	Packing	
MBR10120L-TA3-T	MBR10120G-TA3-T	TO-220	Α	К	Α	Tube	
MBR10120L-TF3-T	MBR10120G-TF3-T	TO-220F	Α	К	Α	Tube	
MBR10120L-T27-T	MBR10120G-T27-T	TO-277	Α	К	Α	Tape Reel	
Note: Pin Assignment: A: Anode K: Cathode							

MBR10120L-TA3-T (1)Packing Type
(1) T: Tube, R: Tape Reel

$\frac{1}{1}$	(1)Packing Type	(1) T: Tube, R: Tape Reel
	(2)Package Type	(2) TA3: TO-220, TF3: TO-220F, T27: TO-277
	(3)Green Package	(3) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise specified)

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

SYMBOL	RATINGS	UNIT
V _{RWM}	120	V
V _{RRM}	120	V
V _{RMS}	70	V
V _R	120	V
Ιo	10	А
I _{FSM}	110	А
TJ	-55~+150	°C
T _{STG}	-55~+150	°C
	V _{RWM} V _{RRM} V _{RMS} V _R I _O I _{FSM} T _J	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

THERMAL CHARACTERISTICS

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	TO-220/TO-220F	0	62.5	°C/W
	TO-277	θ _{JA}	73 (Note)	°C/W
Junction to Case	TO-220	θ _{JC}	2	°C/W
	TO-220F		3.31	°C/W
	TO-277		13 (Note)	°C/W

Note: Mounted on an FR4 PCB, single-sided copper, with 100 cm² copper pad area.

ELECTRICAL CHARACTERISTICS (Note 2)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Instantaneous Forward Voltage Drop	V _E	I _F =10A, T _C =25°C			0.85		
		I _F =10A, T _C =125°C			0.80	v	
Instantaneous Reverse Current		Rated DC Voltage, T _C =25°C			500	μA	
		Rated DC Voltage, T _C =125°C			20	mA	

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC

2. Pulse Test: Pulse Width = 300µs, Duty Cycle ≤ 2.0%



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