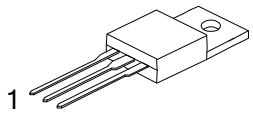
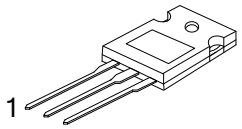
30A SCHOTTKY BARRIER RECTIFIER



TO-220



TO-247

■ DESCRIPTION

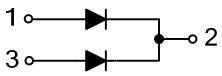
The UTC **MBR3060C** is a 30A schottky barrier rectifier, it uses UTC's advanced technology to provide the customers with high surge capability, high efficiency, high current capability, low power loss and low forward voltage drop, etc.

The UTC **MBR3060C** 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		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR3060CL-TA3-T	MBR3060CG-TA3-T	TO-220	A	K	A	Tube
MBR3060CL-T47-T	MBR3060CG-T47-T	TO-247	A	K	A	Tube

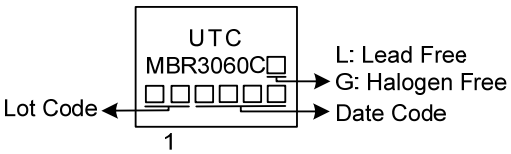
Note: Pin Assignment: A: Anode K: Cathode

MBR3060CG-TA3-T

(1)Packing Type
(2)Package Type
(3)Green Package

(1) T: Tube
(2) TA3: TO-220, T47: TO-247
(3) G: Halogen Free and Lead Free, L: 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%.

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage		V_{RRM}	60	V
Working Peak Reverse Voltage		V_{RWM}	60	V
Maximum RMS Reverse Voltage		V_{RMS}	42	V
DC Blocking Voltage		V_R	60	V
Average Rectified Output Current (Note 2) T_C = 105°C	Per Leg	I_O	15	A
	Total		30	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I_{FSM}	125	A
Junction Temperature		T_J	-55~+150	°C
Storage Temperature		T_{STG}	-55~+150	°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 DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	TO-220	θ_{JA}	62.5	°C/W
	TO-247		40	°C/W
Junction to Case	TO-220	θ_{JC}	3	°C/W
	TO-247		0.54	°C/W

■ ELECTRICAL CHARACTERISTICS (Per Leg) (Note 2) (T_A=25°C unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop	V_F	I_F=15A, T_C=25°C		0.69	0.78	V
		I_F=15A, T_C=125°C		0.63	0.73	V
		I_F=30A, T_C=25°C		0.9		V
		I_F=30A, T_C=125°C		0.86		V
Instantaneous Reverse Current	I_R	V_R=60V, T_C=25°C			100	μA
		V_R=60V, 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%