



MGBR20U60C

Preliminary

DIODE

DUAL MOS GATED BARRIER RECTIFIERS

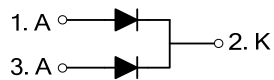
DESCRIPTION

The UTC **MGBR20U60C** is a dual mos gated barrier rectifiers, it uses UTC's advanced technology to provide customers with high current capability, low forward voltage and high switching speed, etc.

FEATURES

- * Ultra low forward voltage
- * High switching speed
- * High current capability

SYMBOL



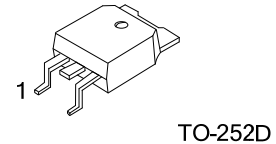
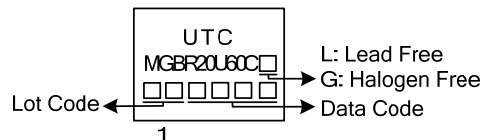
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR20U60CL-TND-R	MGBR20U60CG-TND-R	TO-252D	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

MGBR20U60CL-TND-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) TND: TO-252D
	(3)Green Package	(3) L: Lead Free, G: Halogen Free and Lead Free

MARKING



TO-252D

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V_{RM}	60	V
Working Peak Reverse Voltage	V_{RWM}	60	V
Peak Repetitive Reverse Voltage	V_{RRM}	60	V
Average Rectified Forward Current	Per Leg	10	A
	Total	20	A
Peak Forward Surge Current	I_{FSM}	250	A
Operating Junction Temperature	T_J	$-40\sim+150$	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	$-40\sim+150$	$^{\circ}\text{C}$

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	θ_{JA}	2.5	$^{\circ}\text{C}/\text{W}$
Junction to Case	θ_{JC}	2	$^{\circ}\text{C}/\text{W}$

■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.60\text{mA}$	60			V
Instantaneous Forward Voltage	V_{FM}	$I_F=5\text{A}, T_J=25^{\circ}\text{C}$		0.40		V
		$I_F=5\text{A}, T_J=125^{\circ}\text{C}$		0.37		V
		$I_F=10\text{A}, T_J=25^{\circ}\text{C}$			0.49	V
		$I_F=10\text{A}, T_J=125^{\circ}\text{C}$			0.44	V
Instantaneous Reverse Current (Note 1)	I_{RM}	$V_{RM}=60\text{V}, T_J=25^{\circ}\text{C}$			500	μA
		$V_{RM}=60\text{V}, T_J=125^{\circ}\text{C}$			20	mA

Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

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