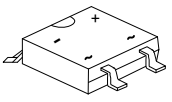
MB05F THRU MB10F

SCHOTTKY BRIDGE

0.8A SCHOTTKY BRIDGE RECTIFIER



MBF

■ DESCRIPTION

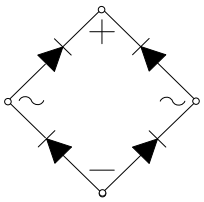
The UTC **MB05F THRU MB10F** is a schottky bridge rectifiers, it uses UTC's advanced technology to provide customers with high surge current capability, etc.

The UTC **MB05F THRU MB10F** is suitable for General purpose use in ac-to-dc bridge full wave rectification for LED bulb and telecommunication.

■ FEATURES

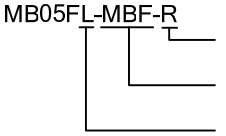
* Low forward voltage drop
* High current capability
* High surge current capability
* Designed for surface mount application

■ SYMBOL



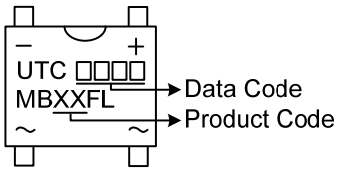
■ ORDERING INFORMATION

Ordering Number	Package	Packing
MB05FL-MBF-R	MBF	Tape Reel
MB1FL-MBF-R	MBF	Tape Reel
MB2FL-MBF-R	MBF	Tape Reel
MB4FL-MBF-R	MBF	Tape Reel
MB6FL-MBF-R	MBF	Tape Reel
MB10FL-MBF-R	MBF	Tape Reel



(1) R: Tape Reel
(2) MBF: MBF
(3) L: Lead Free

■ MARKING



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

Single phase, half wave, 60Hz, resistive or inductive load. For capacitance load, derate current by 20%.

PARAMETER		SYMBOL	RATINGS							UNIT
			MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	
Peak Repetitive Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage		V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage		V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current	T_A=40°C (Note 2)	I_O	0.5							A
	T_A=40°C (Note 3)		0.8							A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	30							A
Operating Junction Temperature Range		T_J	-55~+150							°C
Storage Temperature Range		T_{STG}	-55~+150							°C

Notes: 1. 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.
2. Mounted on glass epoxy pc board with 1.3mm^2 solder pad.
3. Mounted on aluminum substrate PC board with 1.3mm^2 solder pad.
4. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

■ THERMAL DATA

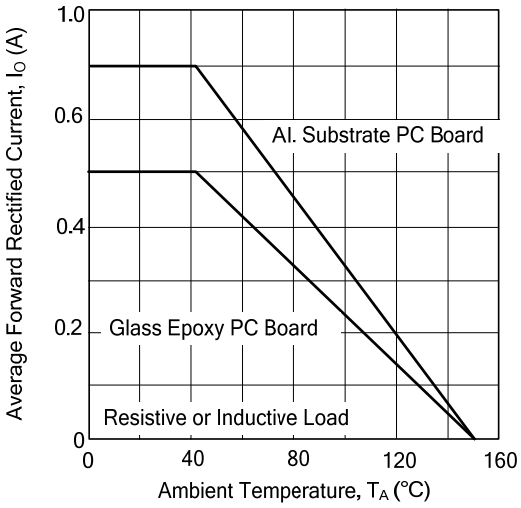
PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient (Note 4)	θ_{JA}	60	°C/W

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

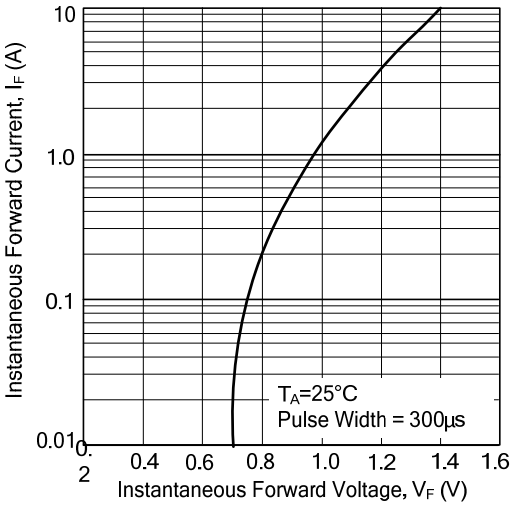
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage	V_F	I_F=0.8A			1.1	V
DC Reverse Current at Rated DC Blocking Voltage	I_R	T_J=25°C			5.0	μA
		T_J=125°C			500	μA
Typical Junction Capacitance (Note 4)	C_J			13		pF

■ TYPICAL CHARACTERISTICS

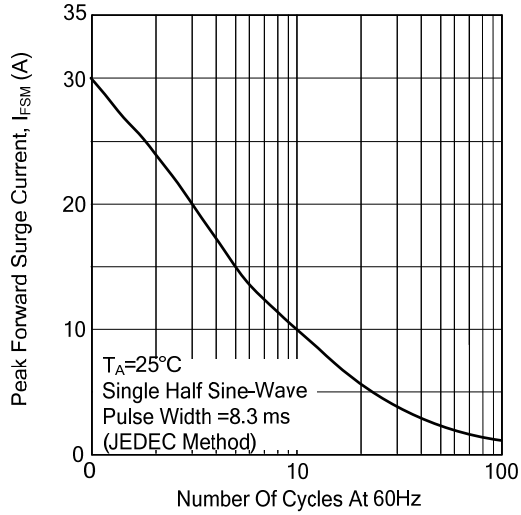
Output Current Derating Curve



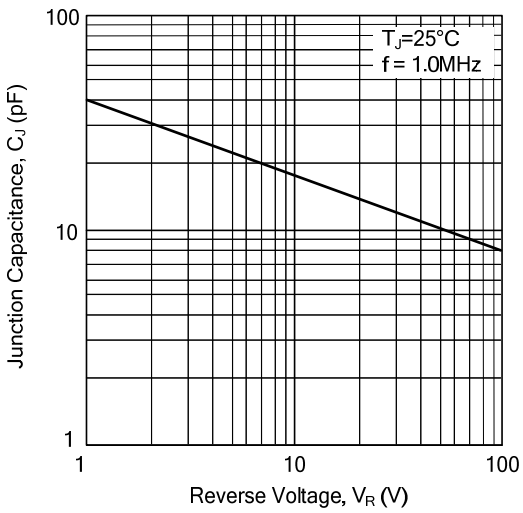
Typical Forward Characteristic (per leg)



Maximum Peak Forward Surge Current (per leg)



Typical Junction Capacitance



Typical Reverse Characteristics