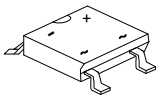
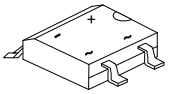
MB1SU THRU MB10SU

SCHOTTKY BRIDGE

1.0A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER



ABS



MBS

■ DESCRIPTION

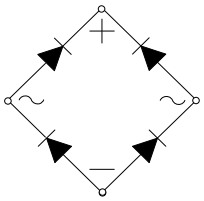
The UTC **MB1SU THRU MB10SU** is a 1.0A surface mount glass passivated bridge rectifiers, it uses UTC's advanced technology to provide customers with high surge current capability, etc.

The UTC **MB1SU THRU MB10SU** is suitable for surface mount application.

■ FEATURES

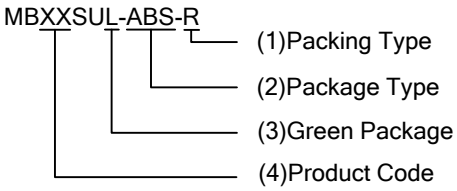
* Low leakage
* Surge overload rating-30A peak
* Glass passivated die construction
* Designed for Surface Mount Application

■ SYMBOL



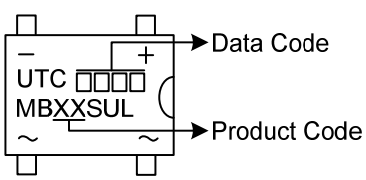
■ ORDERING INFORMATION

Ordering Number	Package	Packing
MBXXSUL-ABS-R	ABS	Tape Reel
MBXXSUL-MBS-R	MBS	Tape Reel



(1) R: Tape Reel
(2) ABS: ABS, MBS: MBS
(3) L: Lead Free
(4) refer to ABSOLUTE MAXIMUM RATINGS

■ 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
		MB1SU	BM2SU	MB4SU	MB6SU	BM8SU	MB10SU	
Peak Repetitive Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}	100	200	400	600	800	1000	V
DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	70	140	280	420	560	700	V
Average Rectified Output Current (T_A=40°C (Note 1))	I_O	1.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	35						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.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	70	°C/W

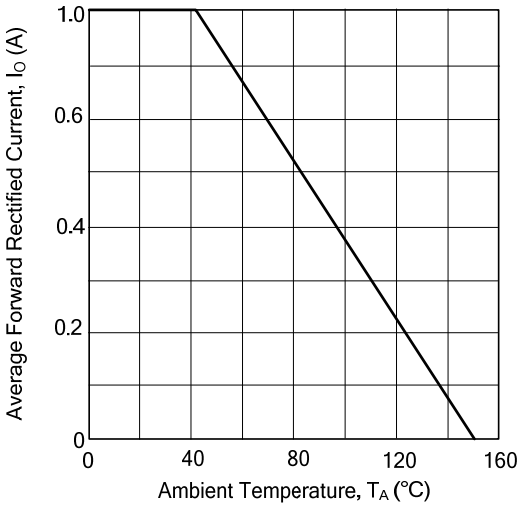
■ ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage	V_F	I_F=1.0A			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
Junction Capacitance (Note)	C_J			13		pF

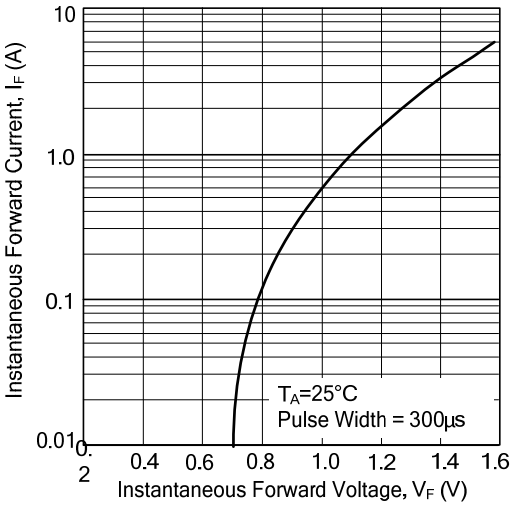
Note: Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

■ TYPICAL CHARACTERISTICS

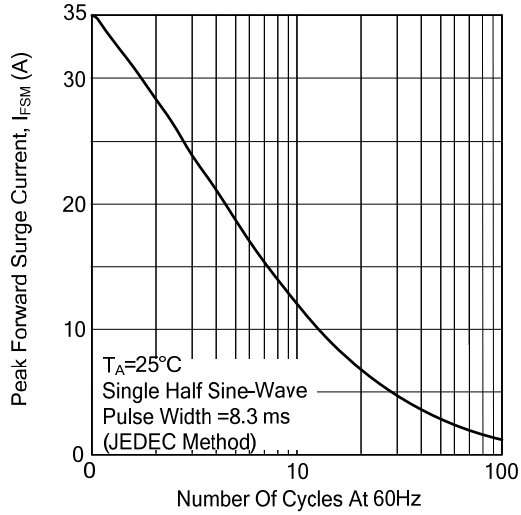
Output Current Derating Curve



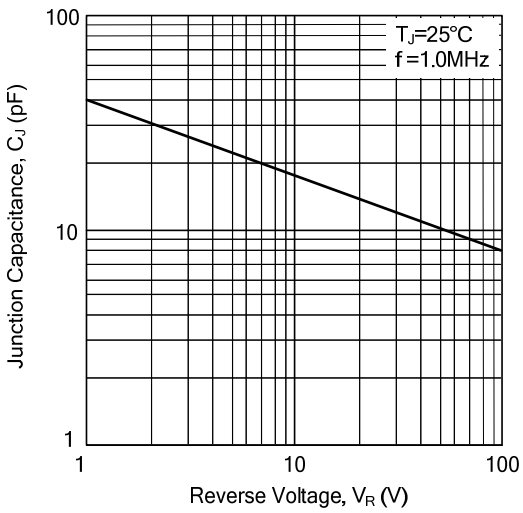
Typical Forward Characteristic (per leg)



Maximum Peak Forward Surge Current (per leg)



Typical Junction Capacitance



Typical Reverse Characteristics