Hottech® Semiconductor

KBU12A THRU KBU12M

12A BRIDGE RECTIFIERS

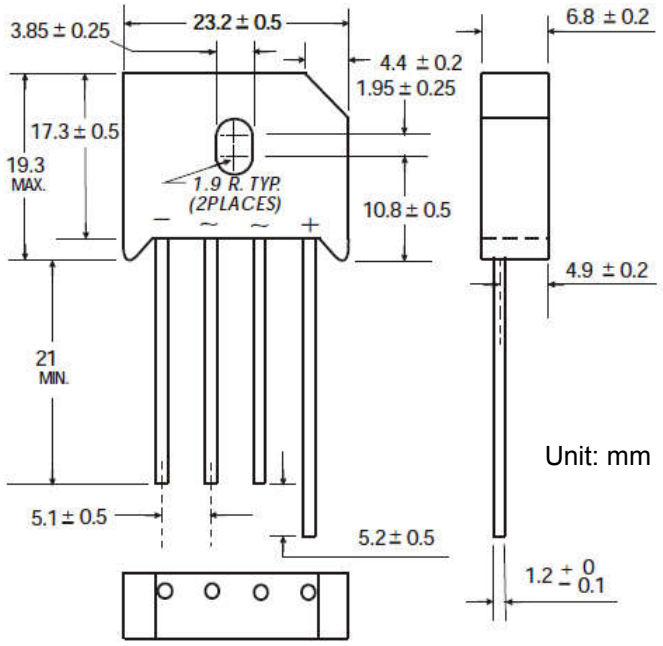
FEATURES

- High surge current capability
- Low forward voltage drop
- High current capability

MECHANICAL DATA

- Case: KBU
- Case material: Molded plastic. UL flammability
- Classification rating: 94V-0
- Terminal: Tin plated,solderable per MIL-STD-202, method 208
- Moisture sensitivity: Level 1 per J-STD-020
- Weight: 8.0 grams (approximate)

KBU



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

Parameter		Symbol	KBU12A	KBU12B	KBU12D	KBU12G	KBU12J	KBU12K	KBU12M	Unit
Alternating input voltage (note 1)		V_{RRM}	50	100	200	400	600	800	1000	V
Repetitive peak reverse voltage		V_{RMS}	35	70	140	280	420	560	700	V
Repetitive peak fwd. Current @f>15Hz (note 2)		I_{FRM}	60							A
Peak forward surge current@60Hz half sine-wave		I_{FSM}	300							A
Forward current without cooling fin@T_A=50°C	R-load	I_{FAV}	8.4							A
	C-load		7.4							
Forward current with cooling fin 300cm²@T_A=50°C	R-load	I_{FAV}	12.0							A
	C-load		9.6							
Rating for fusing @t<10ms		i^2t	375							A^2s
Operating junction temperature		T_j	–50 ~ +150							°C
Storage temperature		T_S	–50 ~ +150							°C
Thermal resistance junction to case		R_{thC}	2.7							K/W

Note:

1) Valid for one branch;

2) Valid, if leads are kept at ambient temperature at a distance of 10mm from case.

12A BRIDGE RECTIFIERS

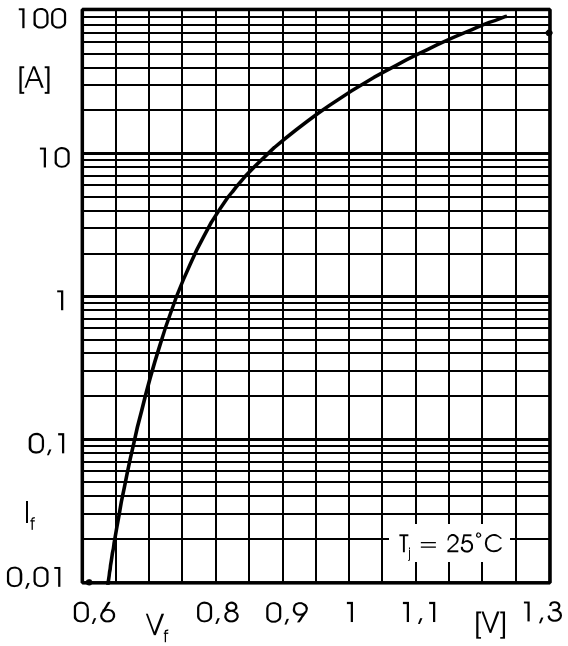
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Max.	Unit	Condition
Forward voltage	V_F	1.0	V	T_j=25C,I_F=12A
Leakage current	I_R	10	μA	T_j=25C,V_R=V_{RRM}

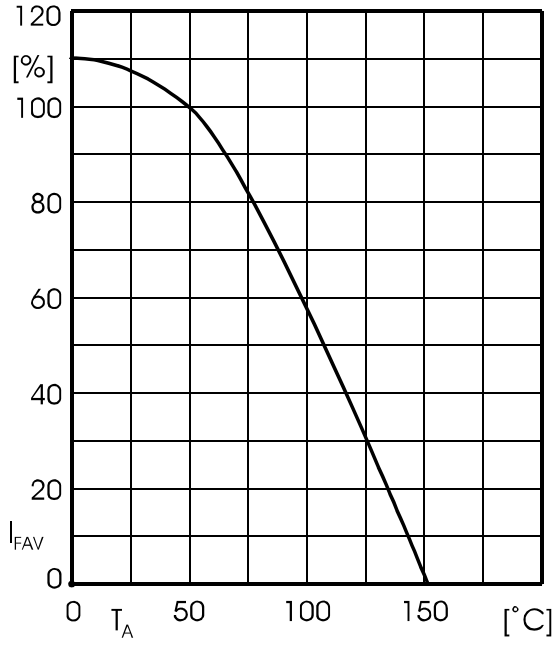
MAX. ADMISSIBLE LOAD CAPACITOR &MIN. REQUIRED PROTECTIVE RESISTOR

Type	Max. admissible load capacitor C_L(μF)	Min. required protective resistorR_t (Ω)
KBU12A	20000	0.2
KBU12B	10000	0.4
KBU12D	5000	0.8
KBU12G	2500	1.6
KBU12J	1500	2.4
KBU12K	1000	3.2
KBU12M	800	4.0

TYPICAL CHARACTERISTICS



Forward characteristic (typical values,note1)



Rated forward current vs. ambient temperature