

### Features

- Low profile package
- Ideal for automated placement
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:  
260°C/10 seconds at terminals
- Component in accordance to  
RoHS 2002/95/1 and WEEE 2002/96/EC

Patented Product



SOF2-4

### Mechanical Date

- **Case:** SOF2-4 Molded plastic body over Schottky barrier chips
- **Terminals:** Solder plated, solderable per JESD22-B102
- **Polarity:** Polarity symbols marked on body

### Major Ratings and Characteristics

$I_{F(AV)}$	2.0 A
$V_{RRM}$	20V to 100V
$I_{FSM}$	50
$V_F$	0.50V, 0.55V, 0.70V, 0.85V
$T_j \text{ max.}$	125 °C

### Maximum Ratings & Thermal Characteristics

( $T_A = 25\text{ °C}$  unless otherwise noted)

Items	Symbol	KUMB22F	KUMB24F	KUMB26F	KUMB28F	KUMB210F	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	40	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	20	40	60	80	100	V
Maximum average forward output rectified current at $T_A=30\text{ °C}$	$I_{F(AV)}$	2.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50					A
Thermal resistance from junction to ambient per leg <sup>(1)</sup>	$R_{\theta JA}$	85					°C/W
Thermal resistance from junction to lead per leg <sup>(1)</sup>	$R_{\theta JL}$	20					°C/W
Operating junction temperature range	$T_J$	-55 to +125					°C
Storage temperature range	$T_{STG}$	-55 to +125					°C

Note 1: Units mounted on P.C.B. with 0.5×0.5" (13×13mm) pads

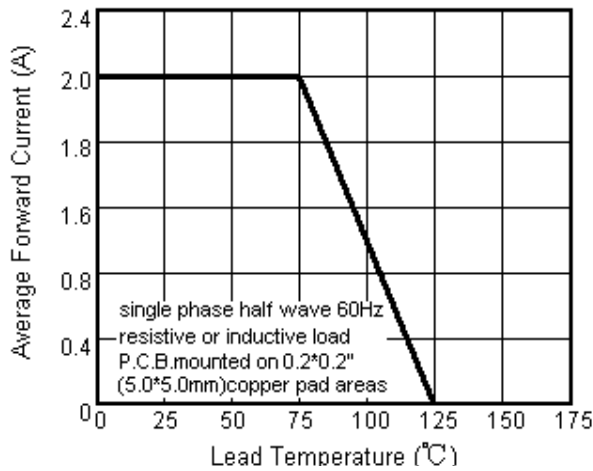
### Electrical Characteristics ( $T_A = 25\text{ °C}$ unless otherwise noted)

Items	Test conditions	Symbol	KUMB22F	KUMB24F	KUMB26F	KUMB28F~ KUMB210F	UNIT
Instantaneous forward voltage per leg	$I_F=2.0A$ <sup>(2)</sup>	VF	0.50	0.55	0.70	0.85	V
Reverse current per leg	$V_R = V_{DC}$ $T_j=25\text{ °C}$ $T_j=100\text{ °C}$	IR	0.5			20	mA

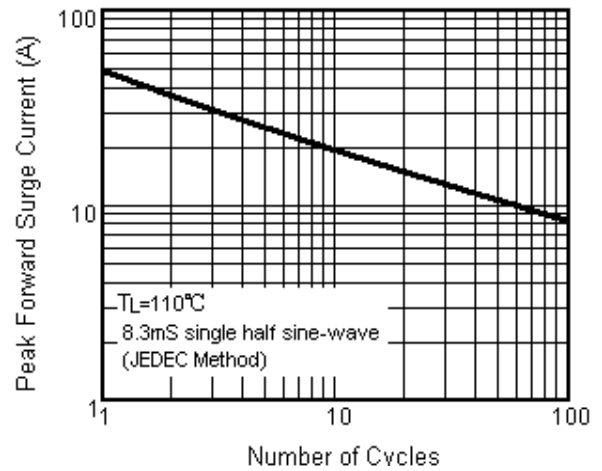
Note 2: Pulse test:300µs pulse width,1% duty cycle.

### Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

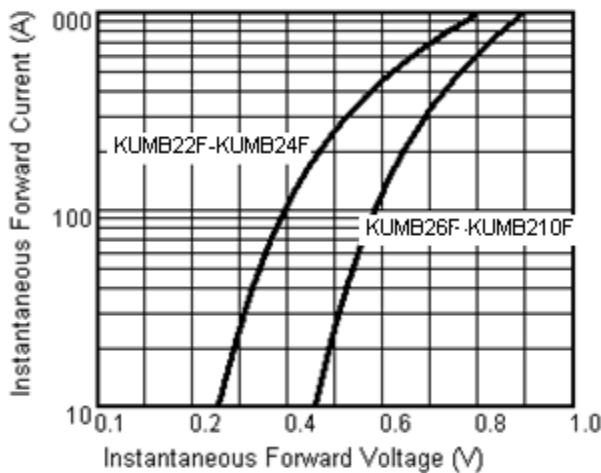
**Fig.1 Forward Current Derating Curve**



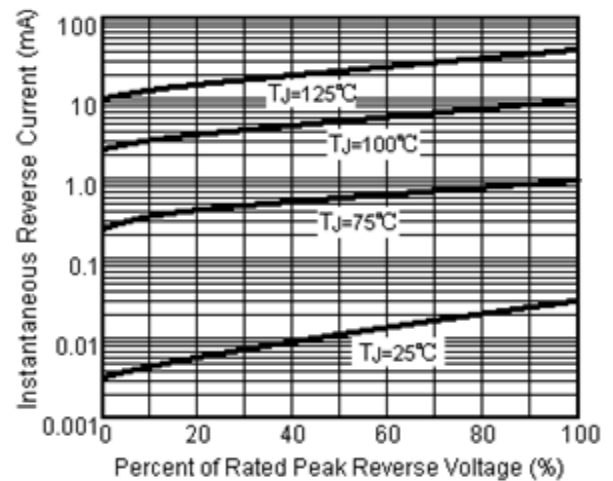
**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



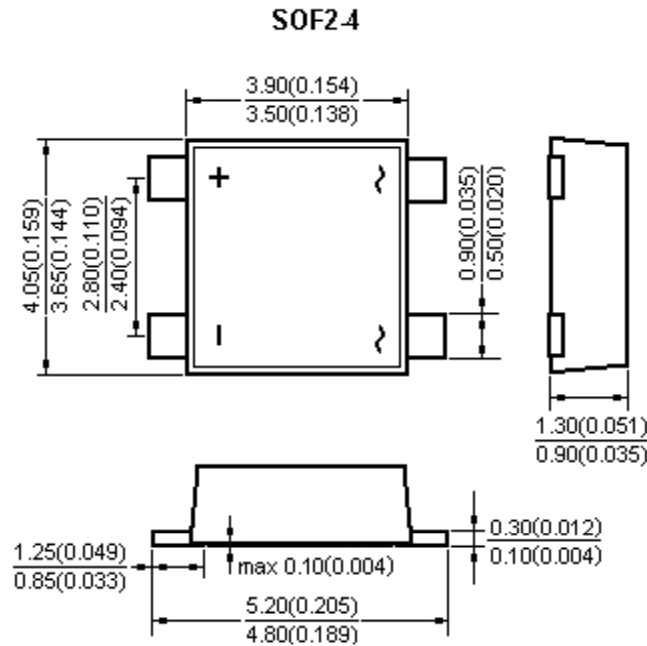
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Characteristics**



### Package Outline



### Notice

- Product is intended for use in general electronics applications.
  - Product should be worked less than the ratings; if exceeded, may cause permanent damage or introduce latent failure mechanisms.
  - The absolute maximum ratings are rated values and must not be exceeded during operation. The following are the general derating methods you design a circuit with a device.
- $I_{F(AV)}$  : We recommend that the worst case current be no greater than 80% .
- $T_J$  : Derate this rating when using a device in order to ensure high reliability. We recommend that the device be used at a  $T_J$  of below 100°C.

- TRR is registered trademark of Zhejiang TRR Microelectronics Inc. Zhejiang TRR Microelectronics Inc reserves the right to make changes to any product in this specification without notice.
- Zhejiang TRR Microelectronics Inc does not assure any liability arising out of the applications or use of any product described in this specification.
- Zhejiang TRR Microelectronics Inc advises customers to obtain the latest version of the device information before placing orders to verify that the required information is current.