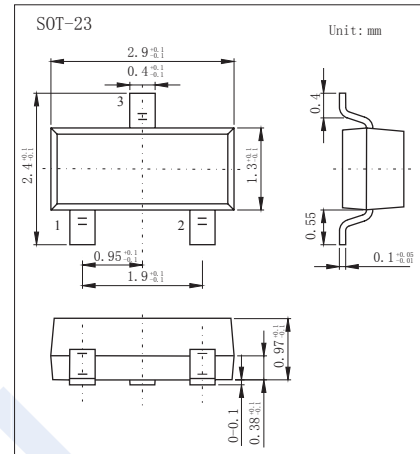


## Switching Diodes

## MMBD2004/A/C/S (KMBD2004/A/C/S)

## ■ Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- High Reverse Breakdown Voltage
- Dual Series Configuration



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Reverse Voltage	V <sub>RM</sub>	300	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	240	
DC Blocking Voltage	V <sub>R</sub>	240	
RMS Reverse Voltage	V <sub>RMS</sub>	170	
Peak Forward Surge Current	I <sub>FM</sub>	225	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	625	
Non-Repetitive Peak Forward Surge Current @ t=1us @ t=1s	I <sub>FSM</sub>	4	A
		1	
Power Dissipation	P <sub>d</sub>	350	mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	357	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature range	T <sub>stg</sub>	-65 to 150	

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V <sub>R</sub>	I <sub>R</sub> = 100 uA	300			V
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 20 mA			0.87	
		I <sub>F</sub> = 100 mA			1	
Reverse voltage leakage current	I <sub>R</sub>	V <sub>R</sub> = 240 V			100	nA
		V <sub>R</sub> = 240 V, T <sub>J</sub> =150°C			100	uA
Total capacitance	C <sub>T</sub>	V <sub>R</sub> = 0 V, f= 1 MHz			5	pF
Reverse recovery time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =30mA, I <sub>rr</sub> =3 mA, R <sub>L</sub> =100Ω			50	ns

### Switching Diodes

#### MMBD2004/A/C/S (KMBD2004/A/C/S)

■ Marking

Item	Marking	Equivalent Circuit diagram
MMBD2004	DB3	
MMBD2004C	DB4	
MMBD2004A	DB5	
MMBD2004S	DB6	

■ Typical Characteristics

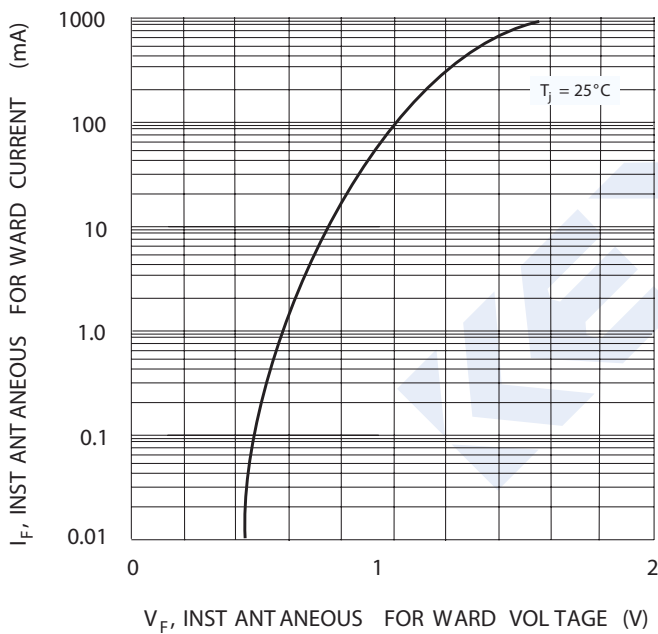


Fig. 1 Forward Characteristics

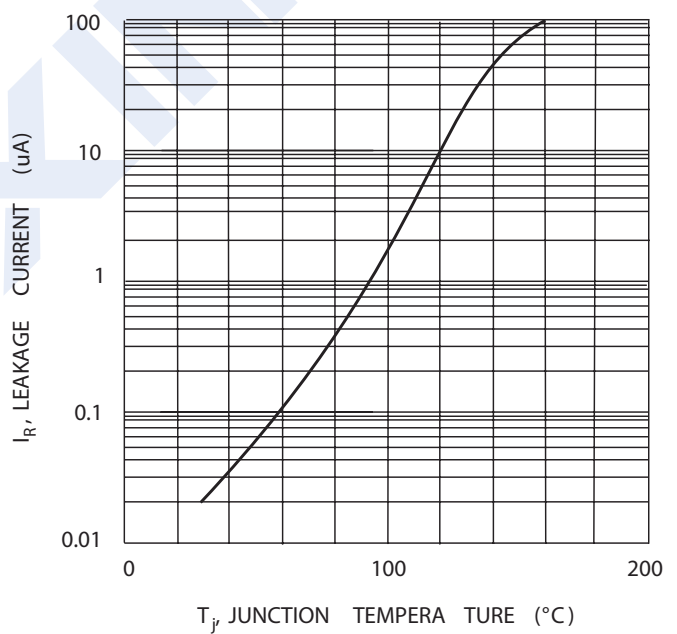


Fig. 2 Leakage Current vs Junction Temperature