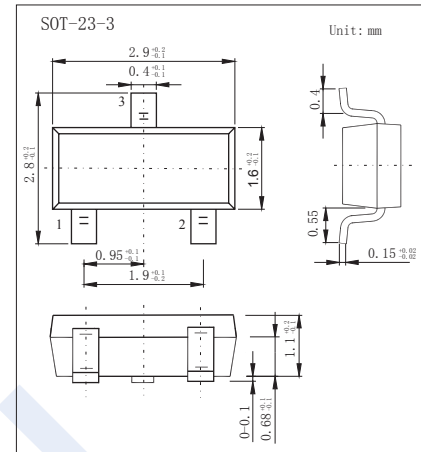


## Switching Diodes

## 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  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_{RM}$	300	V
Working Peak Reverse Voltage	$V_{RWM}$	240	
DC Blocking Voltage	$V_R$	240	
RMS Reverse Voltage	$V_{RMS}$	170	
Peak Forward Surge Current	$I_{FM}$	225	mA
Peak Repetitive Forward Current	$I_{FRM}$	625	
Non-Repetitive Peak Forward Surge Current @ $t=1\mu\text{s}$ @ $t=1\text{s}$	$I_{FSM}$	4	A
		1	
Power Dissipation	$P_d$	350	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature range	$T_{stg}$	-65 to 150	

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_R$	$I_R = 100 \mu\text{A}$	300			V
Forward voltage	$V_F$	$I_F = 20 \text{ mA}$			0.87	
		$I_F = 100 \text{ mA}$			1	
Reverse voltage leakage current	$I_R$	$V_R = 240 \text{ V}$			100	nA
		$V_R = 240 \text{ V}, T_J = 150^\circ\text{C}$			100	$\mu\text{A}$
Total capacitance	$C_T$	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			5	pF
Reverse recovery time	$t_{rr}$	$I_F = I_R = 30 \text{ mA}, I_{rr} = 3 \text{ mA}, R_L = 100 \Omega$			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

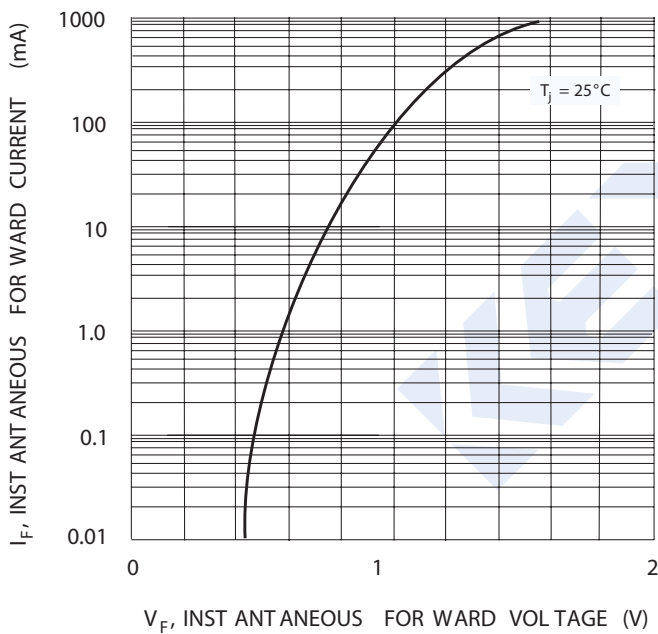


Fig. 1 Forward Characteristics

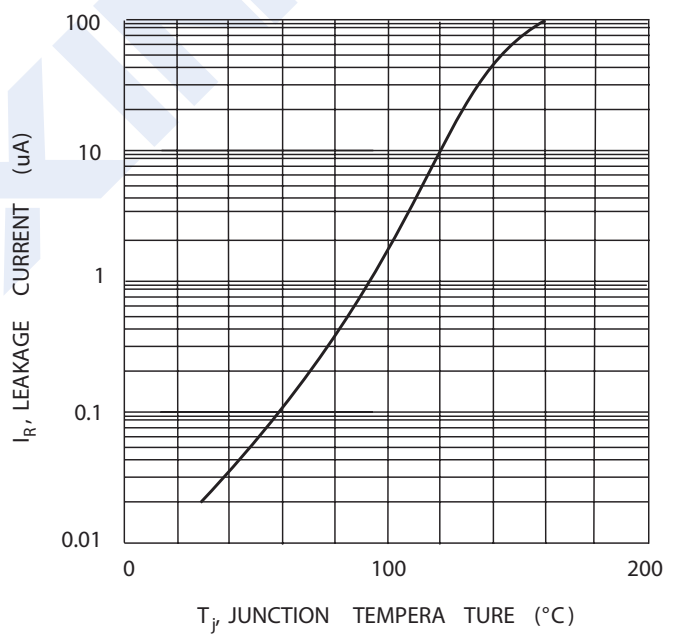


Fig. 2 Leakage Current vs Junction Temperature