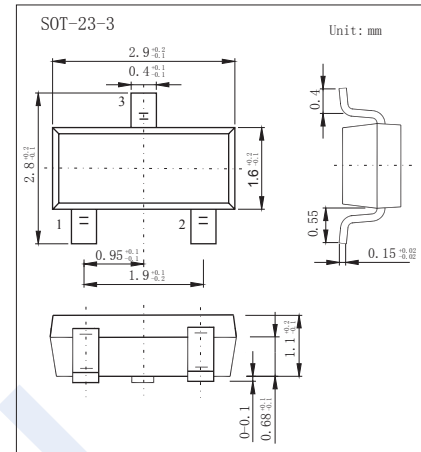


Switching Diodes

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	μA
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

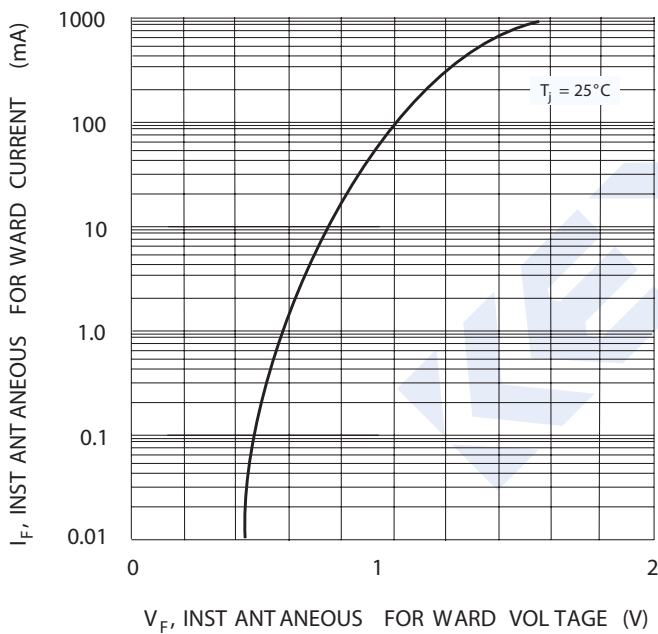


Fig. 1 Forward Characteristics

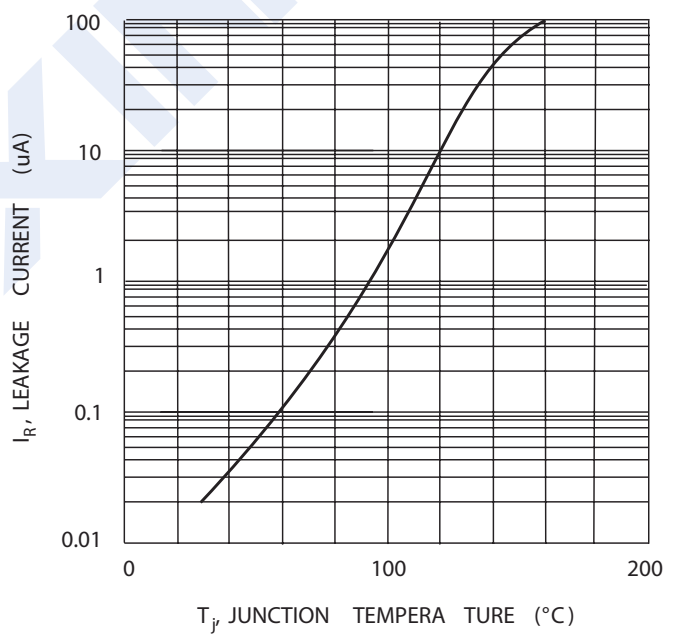


Fig. 2 Leakage Current vs Junction Temperature