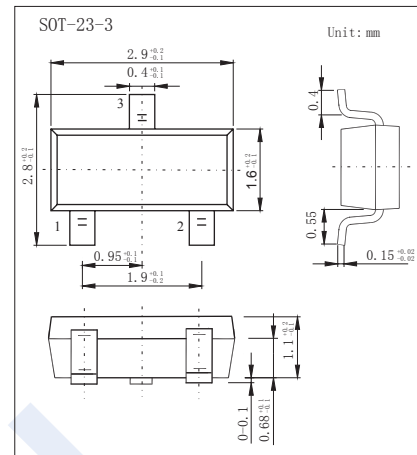
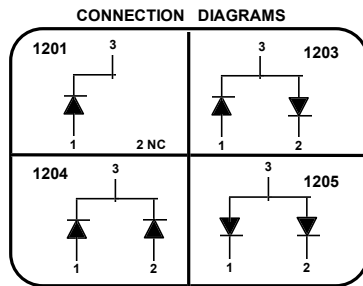


## Switching Diodes

### MMBD1201/1203/1204/1205 (KMBD1201/1203/1204/1205)

#### ■ Features

- High Conductance Ultra Fast Diode



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit	
Peak Reverse voltage	$V_{RM}$	100	V	
Average Rectified Output Current	$I_o$	200	mA	
DC Forward Current	$I_F$	600		
Recurrent Peak Forward Current	$I_{FP}$	700		
Peak forward surge current	$I_{FM}$	Pulse width = 1.0 second	1	A
		Pulse width = 1.0 microsecond	2	
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	$T_{stg}$	-55 to 150		

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_R$	$I_R = 100 \mu\text{A}$	100			V
Forward voltage	$V_F$	$I_F = 1 \text{ mA}$	550		600	mV
		$I_F = 10 \text{ mA}$	660		740	
		$I_F = 100 \text{ mA}$	820		920	
		$I_F = 200 \text{ mA}$	0.87		1	V
		$I_F = 300 \text{ mA}$			1.1	
Reverse voltage leakage current	$I_R$	$V_R = 20 \text{ V}$			25	nA
		$V_R = 50 \text{ V}$			50	
		$V_R = 50 \text{ V}, T_a = 150^\circ\text{C}$			5	$\mu\text{A}$
Capacitance between terminals	$C_T$	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			2	pF
Reverse recovery time	$t_{rr}$	$I_{RR} = 1 \text{ mA}, I_F = I_R = 10 \text{ mA}, R_L = 100 \Omega$			4	ns

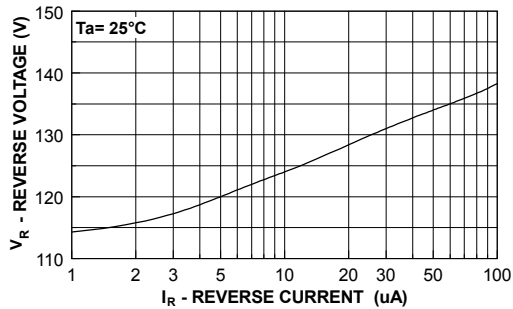
#### ■ Marking

NO.	MMBD1201	MMBD1203	MMBD1204	MMBD1205
Marking	24	26	27	28

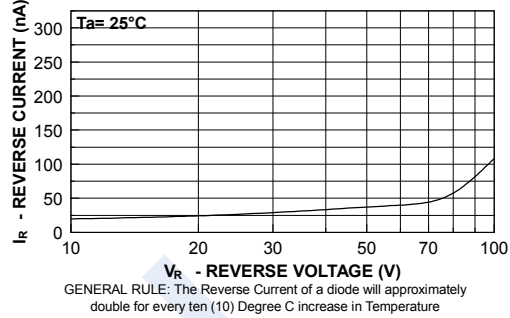
## MMBD1201/1203/1204/1205 (KMBD1201/1203/1204/1205)

### ■ Typical Characteristics

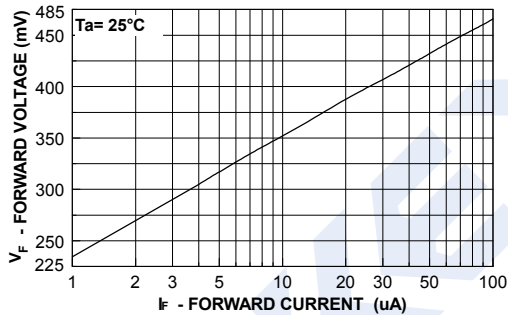
**REVERSE VOLTAGE vs REVERSE CURRENT**  
BV - 1.0 to 100  $\mu$ A



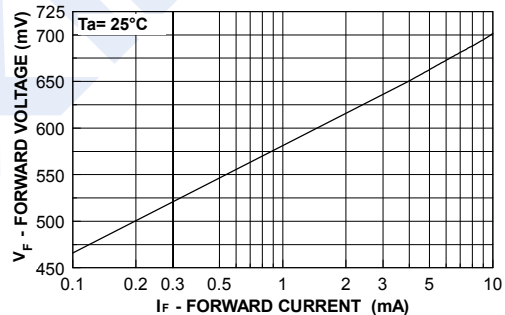
**REVERSE CURRENT vs REVERSE VOLTAGE**  
IR - 10 to 100 V



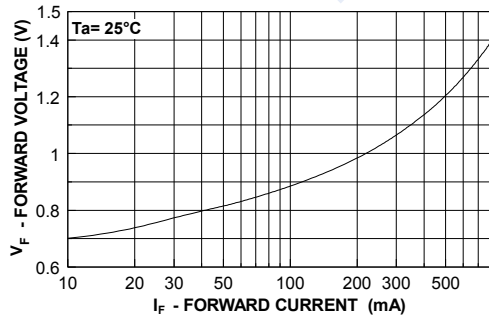
**FORWARD VOLTAGE vs FORWARD CURRENT**  
VF - 1.0 to 100  $\mu$ A



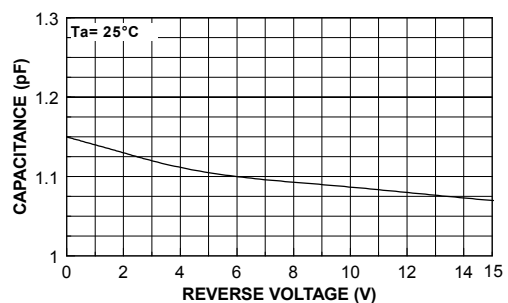
**FORWARD VOLTAGE vs FORWARD CURRENT**  
VF - 0.1 to 10 mA



**FORWARD VOLTAGE vs FORWARD CURRENT**  
VF - 10 - 800 mA



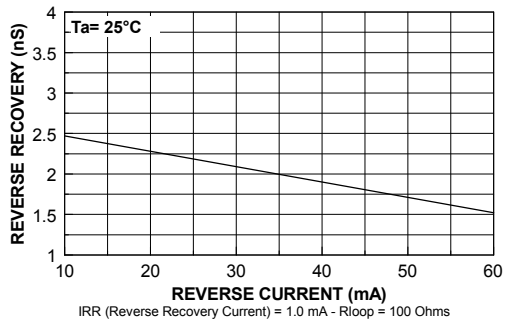
**CAPACITANCE vs REVERSE VOLTAGE**  
VR - 0.0 to 15 V



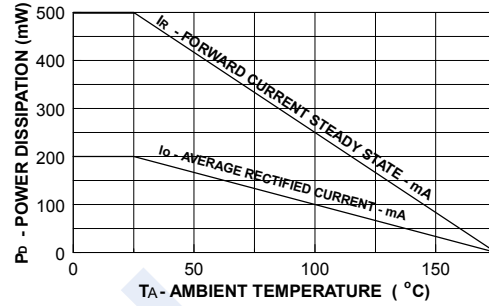
## MMBD1201/1203/1204/1205 (KMBD1201/1203/1204/1205)

■ Typical Characteristics

REVERSE RECOVERY TIME vs REVERSE CURRENT  
TRR - IR 10 mA vs 60 mA



Average Rectified Current ( $I_o$ ) & Forward Current ( $I_f$ ) versus Ambient Temperature ( $T_A$ )



POWER DERATING CURVE

