



Silicon Epitaxial Planar Switching Diode

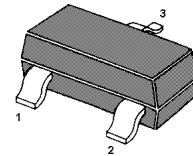
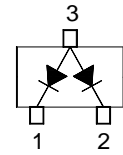
Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance

Applications

- Ultra high speed switching application

Marking Code: **MMBD2835 A3x**
MMBD2836 A2x



SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

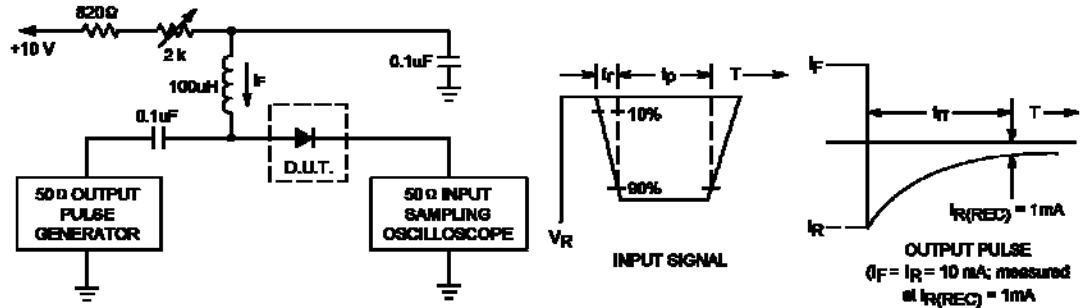
Parameter	Symbol	Value	Unit
Reverse Voltage	MMBD2835 MMBD2836 V_R	35 75	V
Forward Current	I_F	100	mA
Power Dissipation	P_{tot}	350	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage				
at $I_F = 10\text{ mA}$	V_F	-	1	V
at $I_F = 50\text{ mA}$	V_F	-	1	V
at $I_F = 100\text{ mA}$	V_F	-	1.2	V
Reverse Current				
at $V_R = 30\text{ V}$	MMBD2835 I_R	-	100	nA
at $V_R = 50\text{ V}$	MMBD2836	-	100	nA
Reverse Breakdown Voltage				
at $I_R = 100\text{ }\mu\text{A}$	MMBD2835 MMBD2836 $V_{(BR)R}$	35 75	- -	V
Diode Capacitance				
at $V_R = 0$, $f = 1\text{ MHz}$	C_T	-	4	pF
Reverse Recovery Time				
at $I_F = I_R = 10\text{ mA}$, $I_{R(REC)} = 1\text{ mA}$	t_{rr}	-	4	ns



FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



- Notes: 1. A 2.0kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
 2. Input pulse is adjusted so $I_R(\text{peak})$ is equal to 10mA.
 3. $t_p \geq t_r$

FIGURE 2. FORWARD VOLTAGE

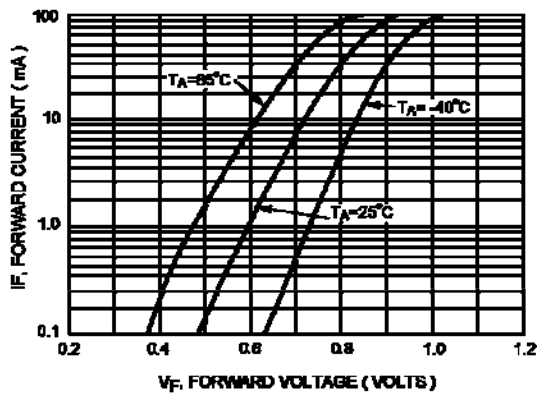


FIGURE 3. LEAKAGE CURRENT

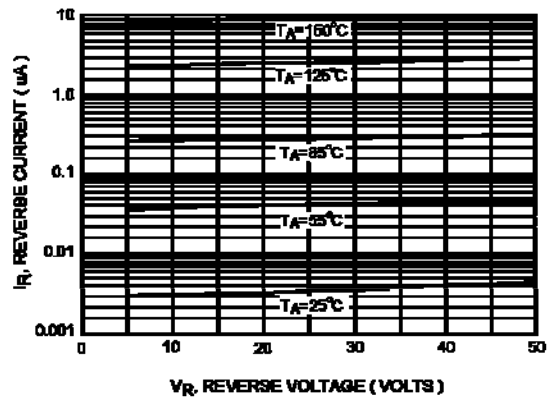
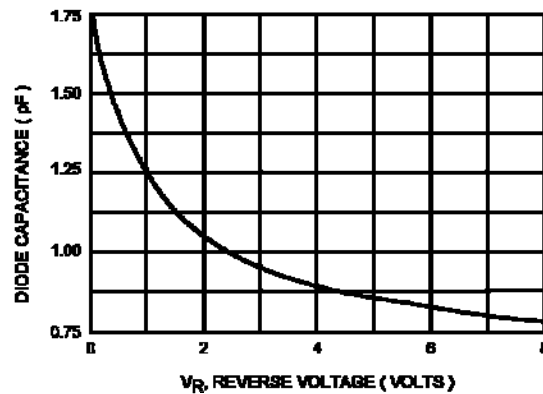


FIGURE 4. CAPACITANCE

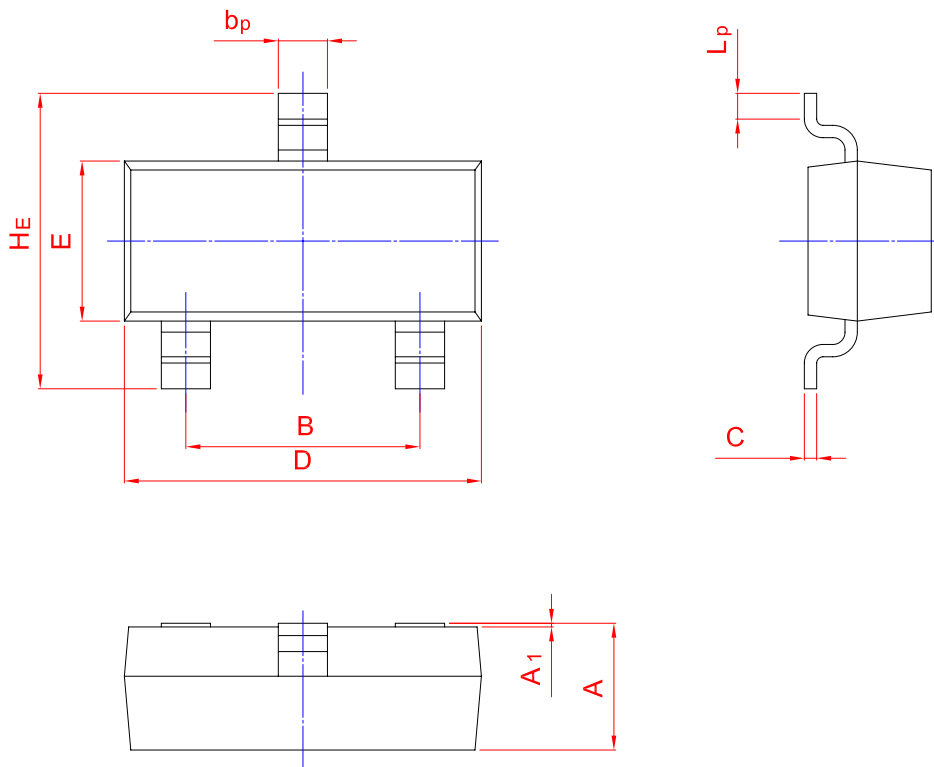
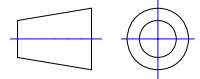




PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20