



New Product

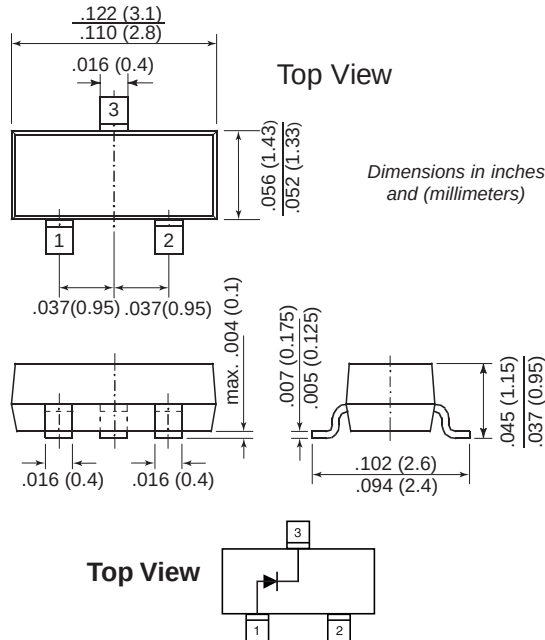
MMBD6050

Vishay Semiconductors
formerly General Semiconductor

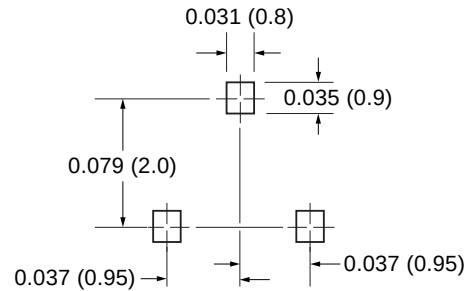


TO-236AB (SOT-23)

Small-Signal Switching Diode



Mounting Pad Layout



Features

- Silicon Epitaxial Planar Diode
- Fast switching diode in case SOT-23, especially suited for automatic insertion.

Mechanical Data

Case: SOT-23 Plastic Package

Weight: approx. 0.008g Marking Code: 5AM

Packaging Codes/Options:

E8/10K per 13" reel (8mm tape), 30K/box

E9/3K per 7" reel (8mm tape), 30K/box

Maximum Ratings and Thermal Characteristics (T_C = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	V _R	70	V
Forward Current	I _F	200	mA
Peak Forward Surge Current	I _{FSM}	500	mA
Maximum Power Dissipation on FR-5 Board ⁽¹⁾	P _{tot}	225	mW
		1.8	mW/°C
Maximum Power Dissipation on Alumina Substrate ⁽²⁾	P _{tot}	300	mW
		2.4	mW/°C
Thermal Resistance Junction to Ambient	R _{θJA}	556	°C/W
		417	°C/W
Maximum Junction Temperature	T _j	150	°C
Storage Temperature Range	T _S	-55 to +150	°C

Electrical Characteristics (T_C = 25°C unless otherwise noted)

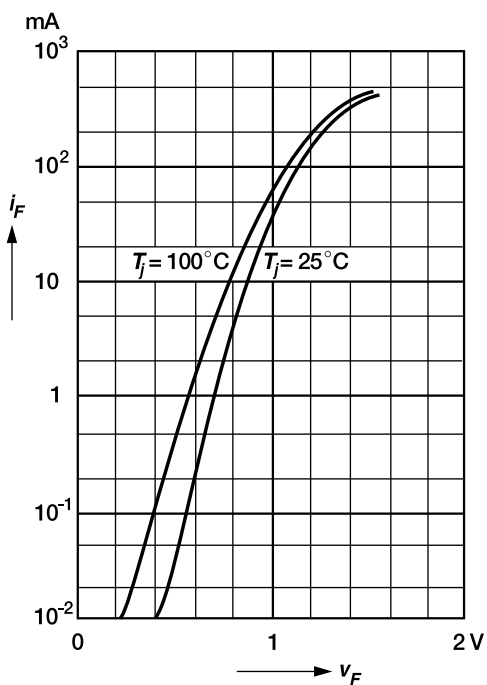
Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I _R = 100μA	V _{(BR)R}	70	—	V
Forward Voltage Drop at I _F = 1mA at I _F = 100mA	V _F	0.55	0.7	V
		0.85	1.1	
Reverse Leakage Current at V _R = 50V	I _R	—	0.1	μA
Reverse Recovery Time at I _F = I _R = 10mA, I _{rr} = 1mA	trr	—	4	ns
Capacitance at V _R = 0	C _{tot}	—	2.5	pF

Notes: (1) FR-5 = 1.0 x 0.75 x 0.062 in.

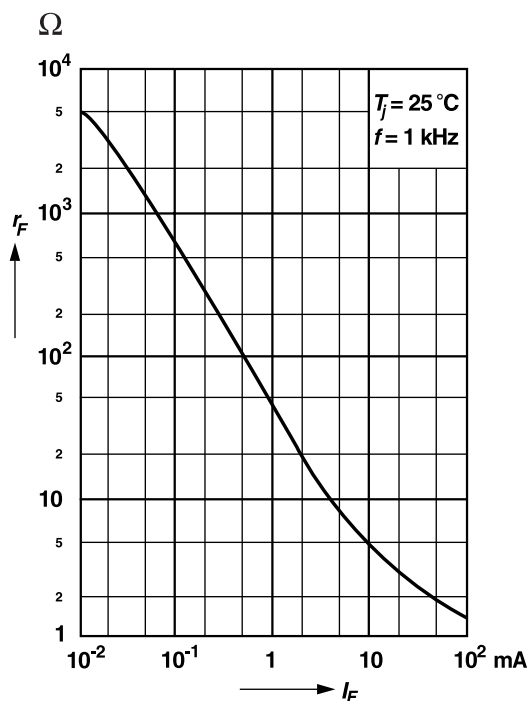
(2) Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Forward characteristics

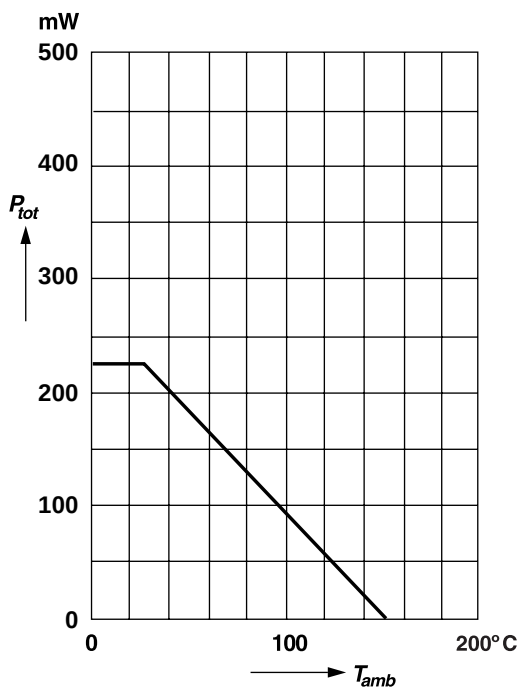


Dynamic forward resistance versus forward current

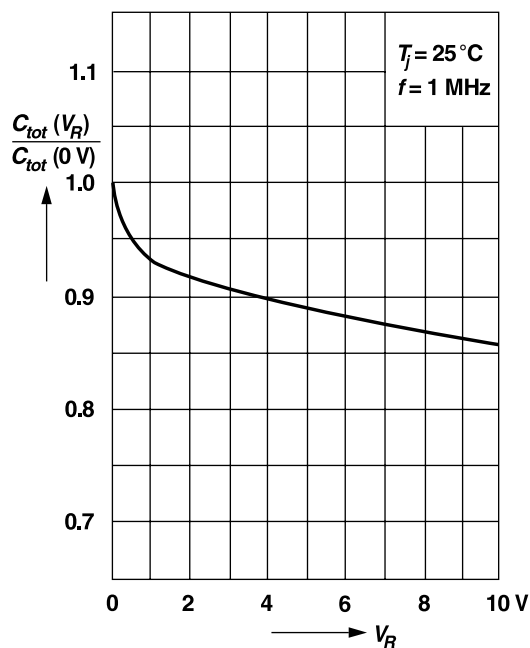


Admissible power dissipation versus ambient temperature

For conditions, see footnote in table "Absolute Maximum Ratings"

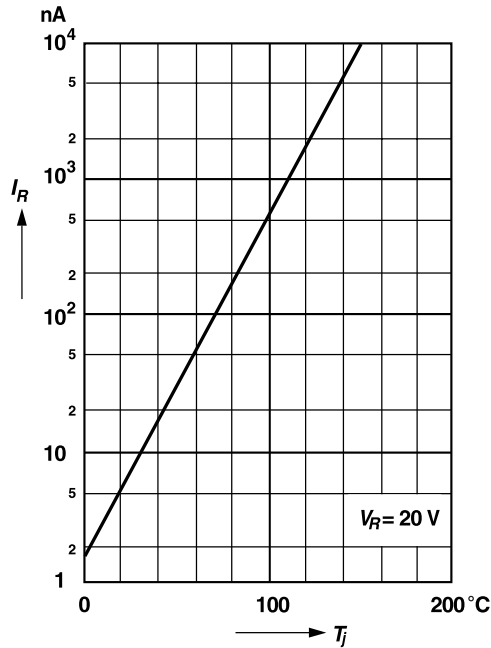


Relative capacitance versus reverse voltage



Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Leakage current
versus junction temperature



Admissible repetitive peak forward current versus pulse duration

For conditions, see footnote in table "Absolute Maximum Ratings"

