

MBR0530BP

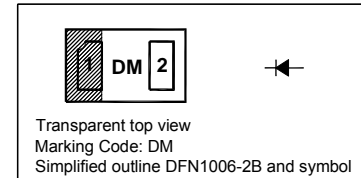
Silicon Epitaxial Planar Schottky Barrier Diode

Features

- Very Low Forward Voltage
- Low reverse current
- Low capacitance
- Very high switching speed

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Forward current	I_F	500	mA
Total Power Dissipation ¹⁾	P_D	190	mW
Thermal Resistance Junction to Ambient Air ¹⁾	$R_{\theta JA}$	520	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 125	$^\circ\text{C}$

¹⁾ Mounted onto a 4 in square FR-4 board 10 mm sq. 1 oz. Cu 0.06" thick single sided. Operating to steady state.

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

Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 500\text{ mA}$	V_F	- - -	0.37 0.46 0.62	V
Reverse Current at $V_R = 10\text{ V}$ at $V_R = 30\text{ V}$	I_R	- -	10 200	μA
Total Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_T	10	-	pF

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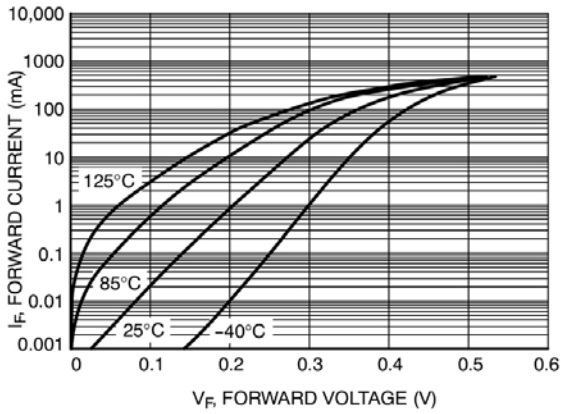


Figure 1. Forward Voltage

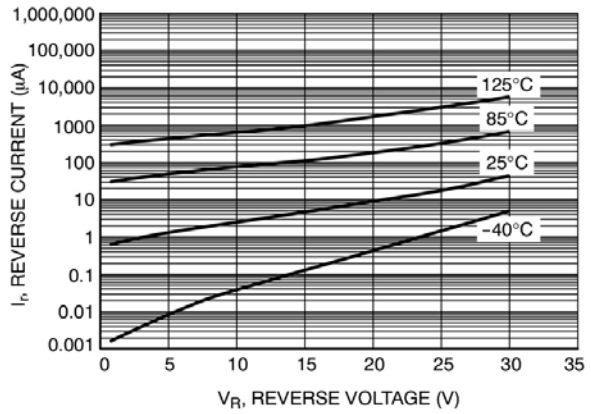


Figure 2. Leakage Current

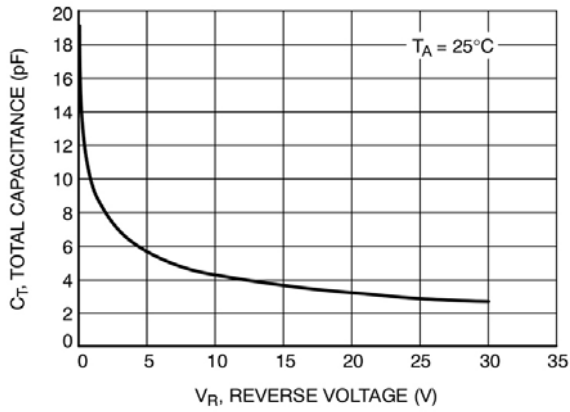


Figure 3. Total Capacitance

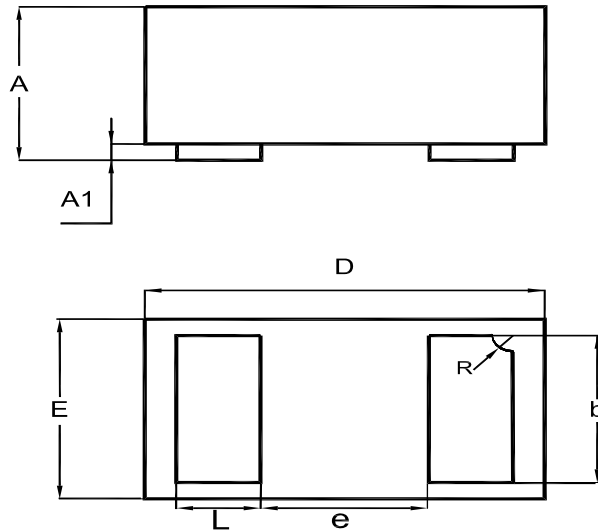
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PACKAGE OUTLINE

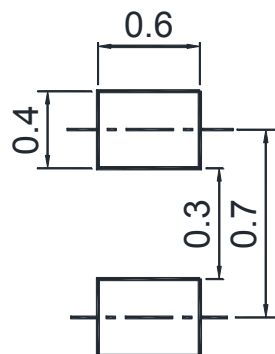
Plastic surface mounted package;

DFN1006-2B



UNIT	A	A1	b	D	E	e	L	R
mm	0.40 0.36	0.05 0	0.55 0.45	1.05 0.95	0.65 0.55	0.4	0.3 0.2	0.15 0.05

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN1006-2B	8	4 ± 0.1	0.157 ± 0.004	178	7	5,000

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