

## Schottky Barrier Diode

## BAT42L-BAT43L

### FEATURES

- Low forward voltage.
- Fast switching time.
- Surface mount package ideally suited for automatic insertion.



### APPLICATIONS

- Schottky barrier detector and switching diodes.

### ORDERING INFORMATION

Type No.	Marking	Package Code
BAT42L	S7	DFN1006-2
BAT43L	S8	DFN1006-2

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	$V_{RM}$	30	V
Working peak	$V_{RWM}$		
DC Reverse Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward continuous Current	$I_F$	200	mA
Repetitive peak Forward Current	$I_{FRM}$	500	mA
Forward Surge Current	$I_{FSM}$	4.0	A
Power Dissipation	$P_d$	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	625	°C/W
Junction temperature	$T_j$	125	°C
Storage temperature range	$T_{stg}$	-55 to +125	°C

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### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=100\mu A$	30			V
Forward voltage	ALL types	$I_F=200mA$			1.0	V
	BAT42L	$I_F=10mA$			0.4	V
	BAT42L	$I_F=50mA$			0.65	V
	BAT43L	$I_F=2mA$	0.26		0.33	V
	BAT43L	$I_F=15mA$			0.45	V
Reverse current	$I_R$	$V_R=25V$			0.5	$\mu A$
Reverse recovery time	$t_{rr}$	$I_F=I_R=10mA$ $I_{rr}=0.1*I_R$ $R_L=100\Omega$			5.0	ns
Capacitance between terminals	$C_T$	$V_R=1V, f=1MHz$			10	pF
Rectification efficiency	$\eta_V$	$R_L=15\Omega, C_L=300pF,$ $f=45MHz$	80			%

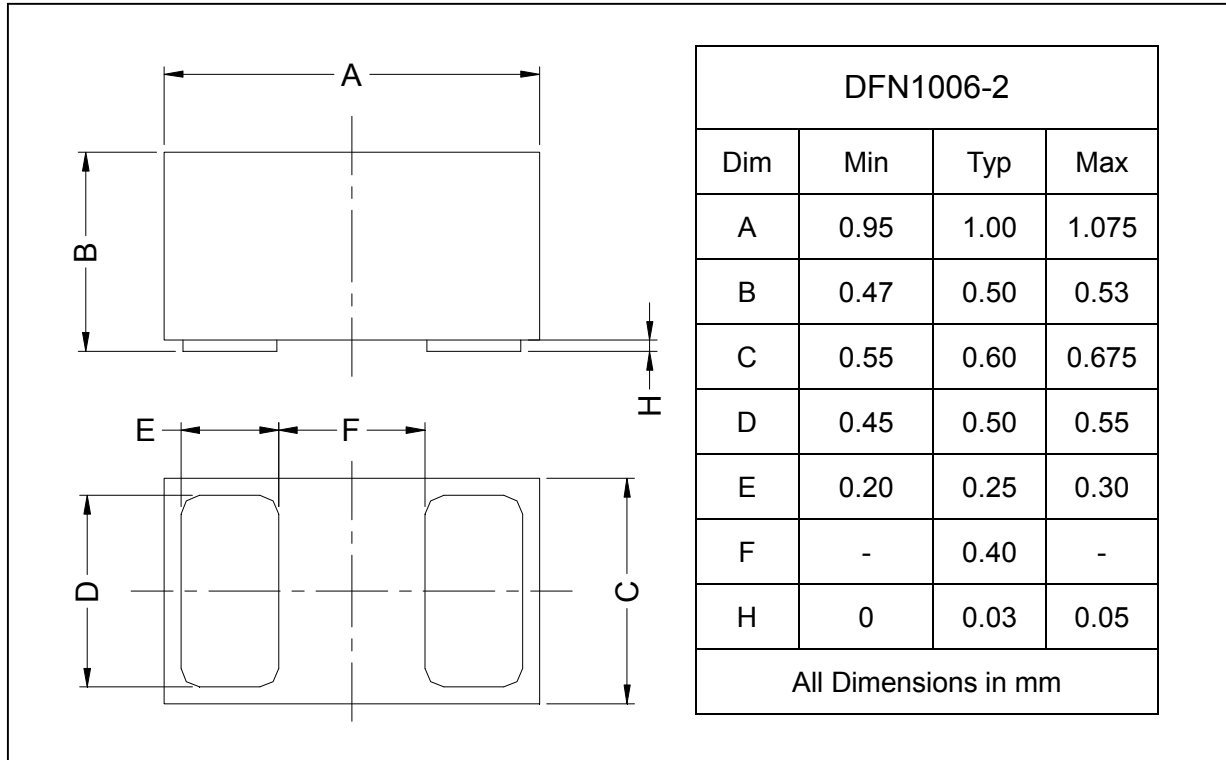
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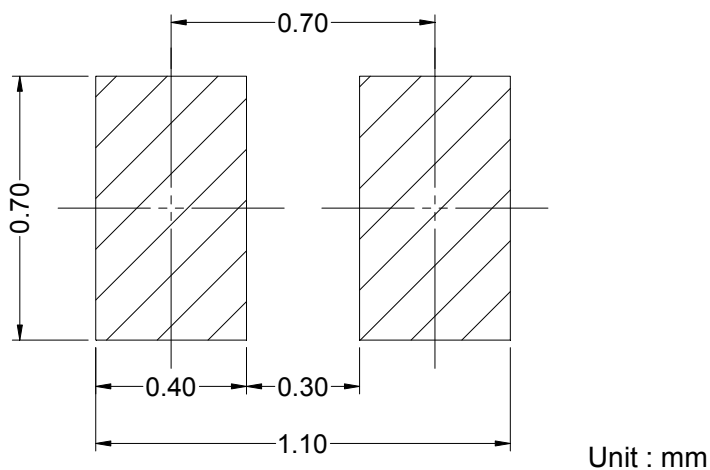
### PACKAGE OUTLINE

Plastic surface mounted package

DFN1006-2



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

Device	Package	Shipping
BAT42L-43L	DFN1006-2	5000/Tape&Reel