

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Low forward voltage
- ◆ Low current leakage
- ◆ For surface mounted applications in order to optimize board space
- ◆ High temperature soldering guaranteed:
260 C/10 seconds
- ◆ Compliant to RoHS Directive 2011/65/EU



DFN1006



Applications

- ◆ Low current rectification
- ◆ Switch mode power supply
- ◆ Inverse polarity protection
- ◆ Low power consumption applications

Marking

Type number	Marking code
MBR4010DF	40

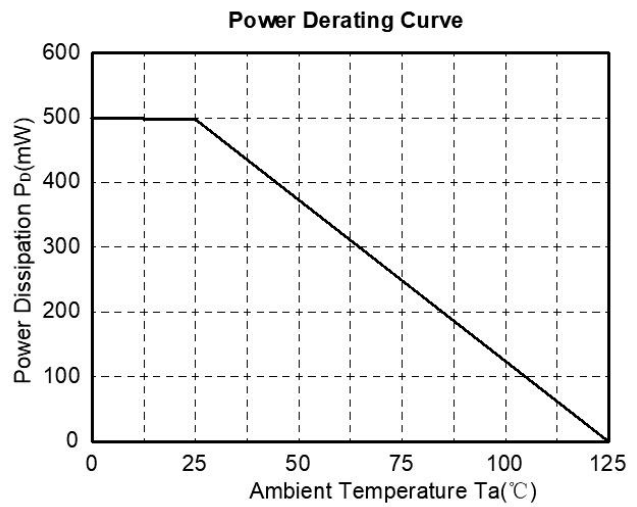
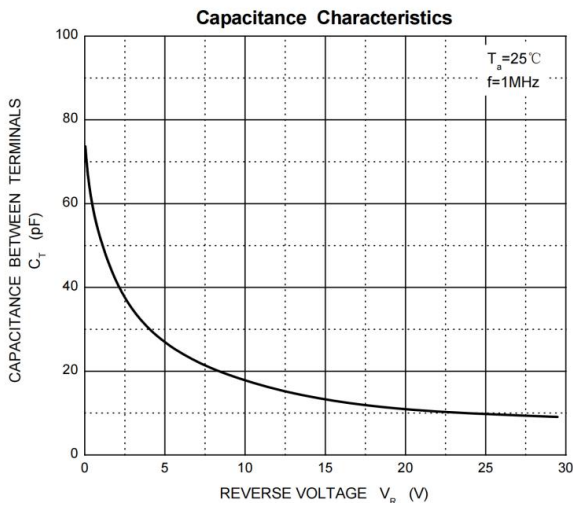
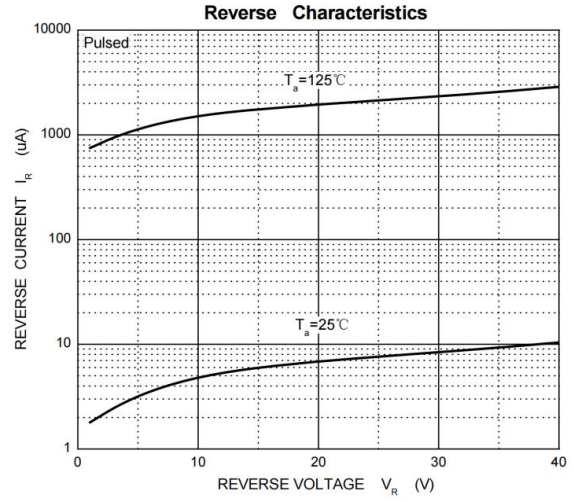
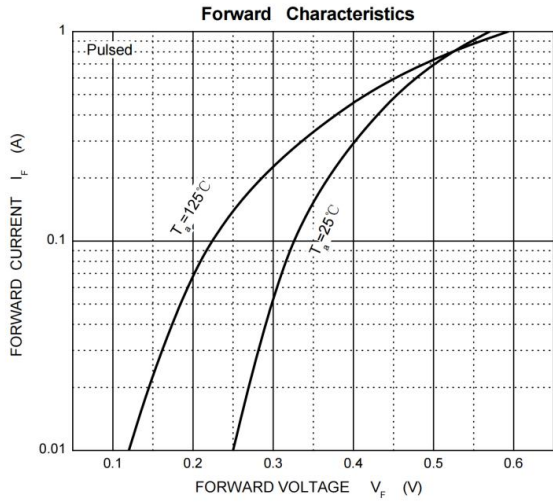
Absolute Maximum Ratings (T=25°C, RH=45%-75%, unless otherwise noted)

Parameters	Symbol	Limit	Unit
Reverse Voltage (Repetitive Peak)	V_{RRM}	40	V
Reverse Voltage (RMS)	$V_{R(RMS)}$	32	V
DC Blocking Voltage	V_R	40	V
Average Rectified Output Current	I_O	1	A
Non-repetitive Peak Forward Surge Current@t=8.3ms	I_{FSM}	7	A
Power Dissipation	P_D	500	mW
Thermal Resistance Junction to Ambient(Typ)	$R_{\theta JA}$	120	°C/W
Junction Temperature	T_J	-55 ~ +125	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Electrical Characteristics (T=25°C, RH=45%-75%, unless otherwise noted)

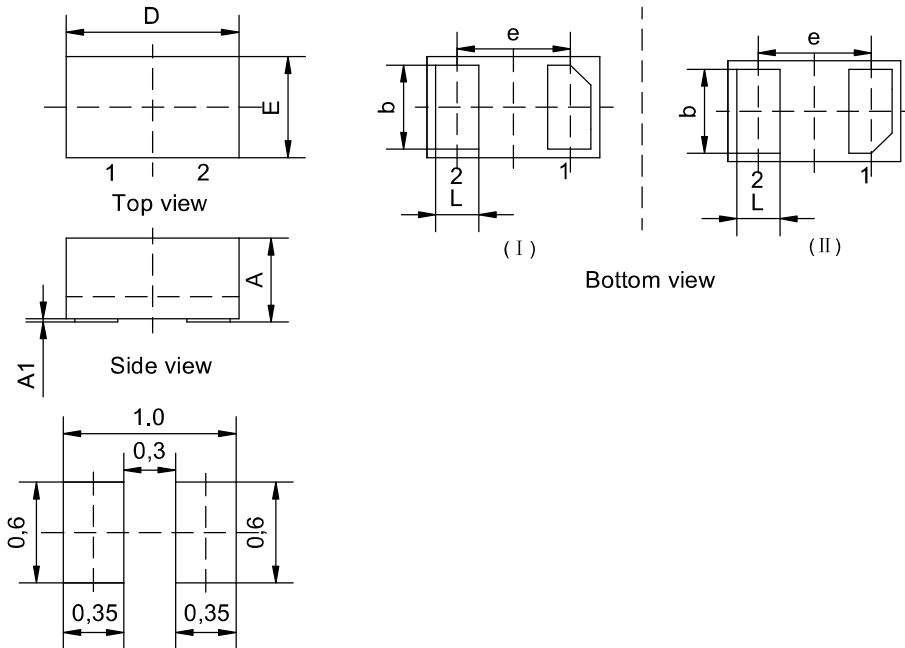
Parameters	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Breakdown Voltage	V_{BR}	$I_R=1mA$	40			V
Reverse Current	I_R	$V_R=40V$		10	40	uA
Forward Voltage	V_F	$I_F=100mA$			0.38	V
		$I_F=200mA$			0.40	
		$I_F=500mA$			0.49	
		$I_F=700mA$			0.55	
		$I_F=1A$			0.61	
Total Capacitance	C_T	$V_R=0V, f=1MHz$		75	120	pF

Rating and characteristic curves



Package Mechanical Data

DFN1006



Recommended soldering footprint(mm)

Symbol	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.40	0.50	0.55	0.016	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65BSC			0.026BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012

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