

Switching Diode

Features

- Fast Switching Speed
- Low Leakage Current
- Low power losses, high efficiency
- High surge capability
- RoHS Compliant

Mechanical Characteristics

- Package: DFN1006-2L
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020

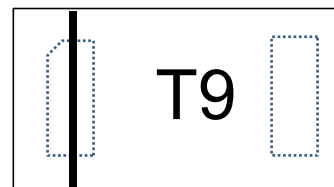
Applications

- Electronic computer
- Pulse
- Switching circuit

Appearance&Symbol



Marking Information



T9= Marking Code

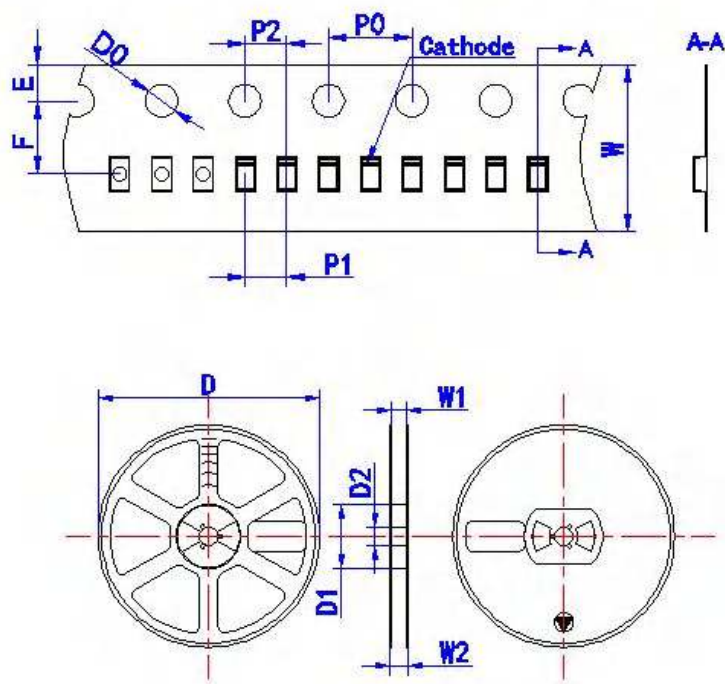
Absolute Maximum Ratings(T=25°C, RH=45%-75%, unless otherwise noted)

Parameters	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	125	V
Continuous Reverse voltage	V_R	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	71	V
Repetitive peak forward current	I_{FM}	215	mA
Non-repetitive Peak Forward Surge Current@t=1us	I_{FSM}	4	A
Power Dissipation	P_D	250	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	°C/W
Junction temperature Range	T_J	-55 ~ +150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Electrical Characteristics(T=25°Cunless otherwise noted)

Parameters	Symbol	Test Condition	Min	Max	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R = 100\mu A$	100		V
Reverse Leakage Current	I_R	$V_R = 80V$		500	nA
		$V_R = 25V$		30	nA
Forward Voltage	V_F	$I_F = 1.0mA$		0.715	V
		$I_F = 10mA$		0.855	
		$I_F = 50mA$		1	
		$I_F = 150mA$		1.25	
Junction Capacitance	C_J	$V_R = 0, f = 1.0MHz$		1.5	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10mA,$ $I_{tr} = 0.1 \times I_R, R_L = 100\Omega$		4	ns

Tape & reel specification

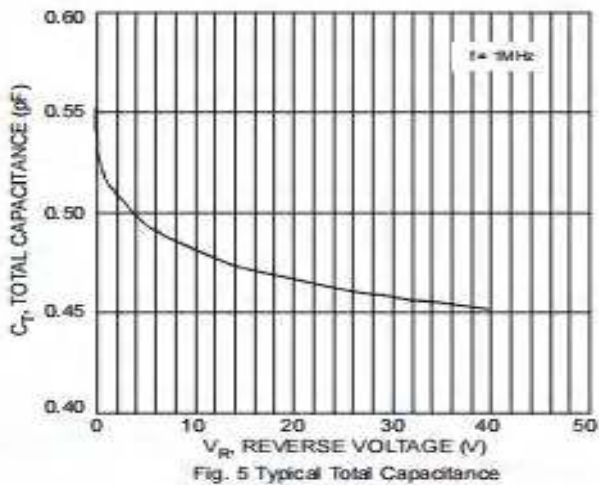
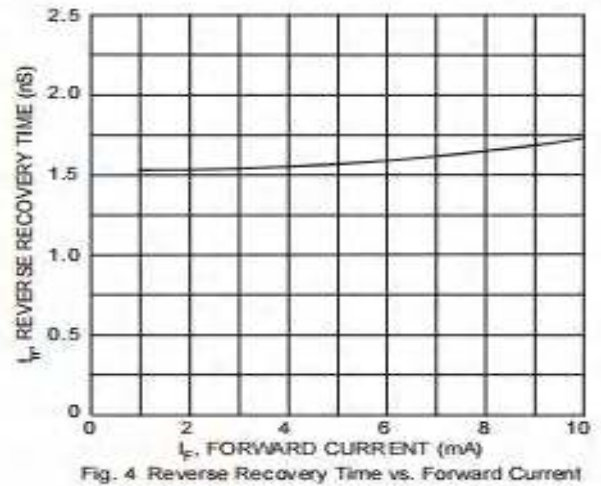
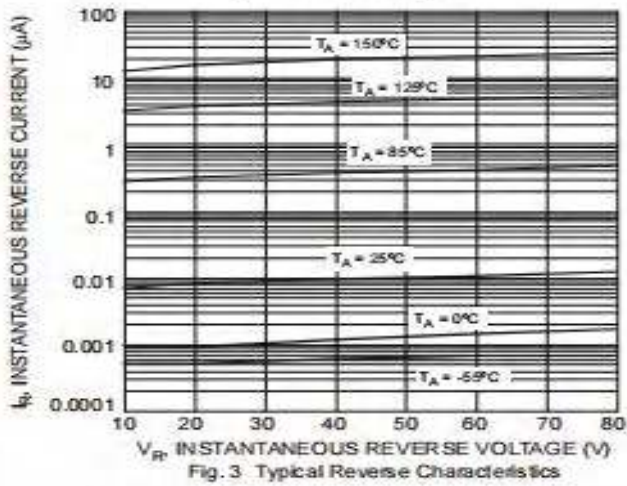
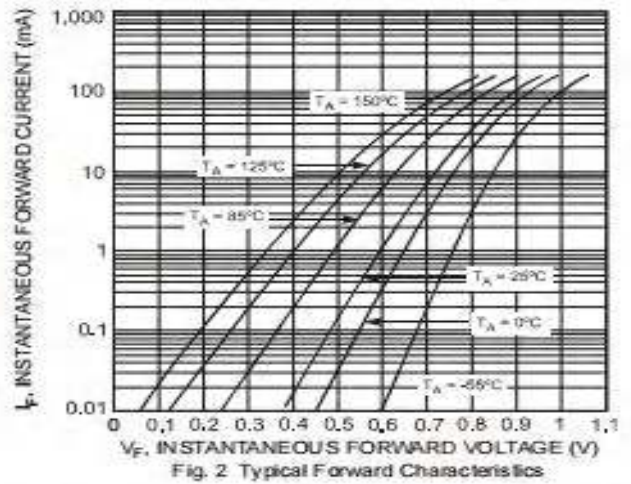
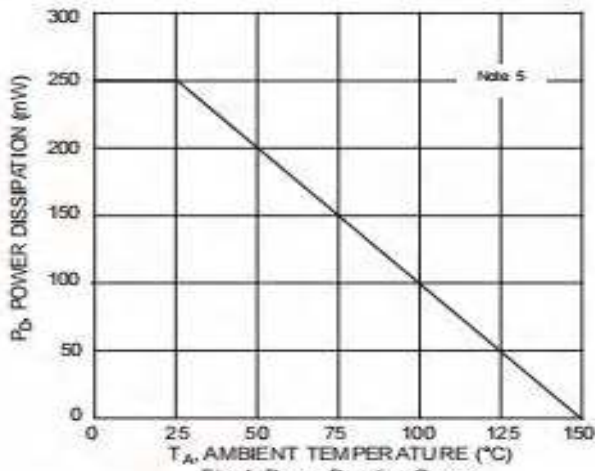


Symbol	Dimension in Millimeters
Tape	
D0	1.50±0.10/-0.00
E	1.75±0.10
F	3.50±0.10
P0	4.00±0.10
P1	2.00±0.10
P2	2.00±0.10
W	8.00±0.3/-0.1
Reel	
D	178.0±2.00
D1	54.40±1.00
D2	13.00±1.00
W1	9.50±1.00
W2	12.30±1.00

ORDERING INFORMATION

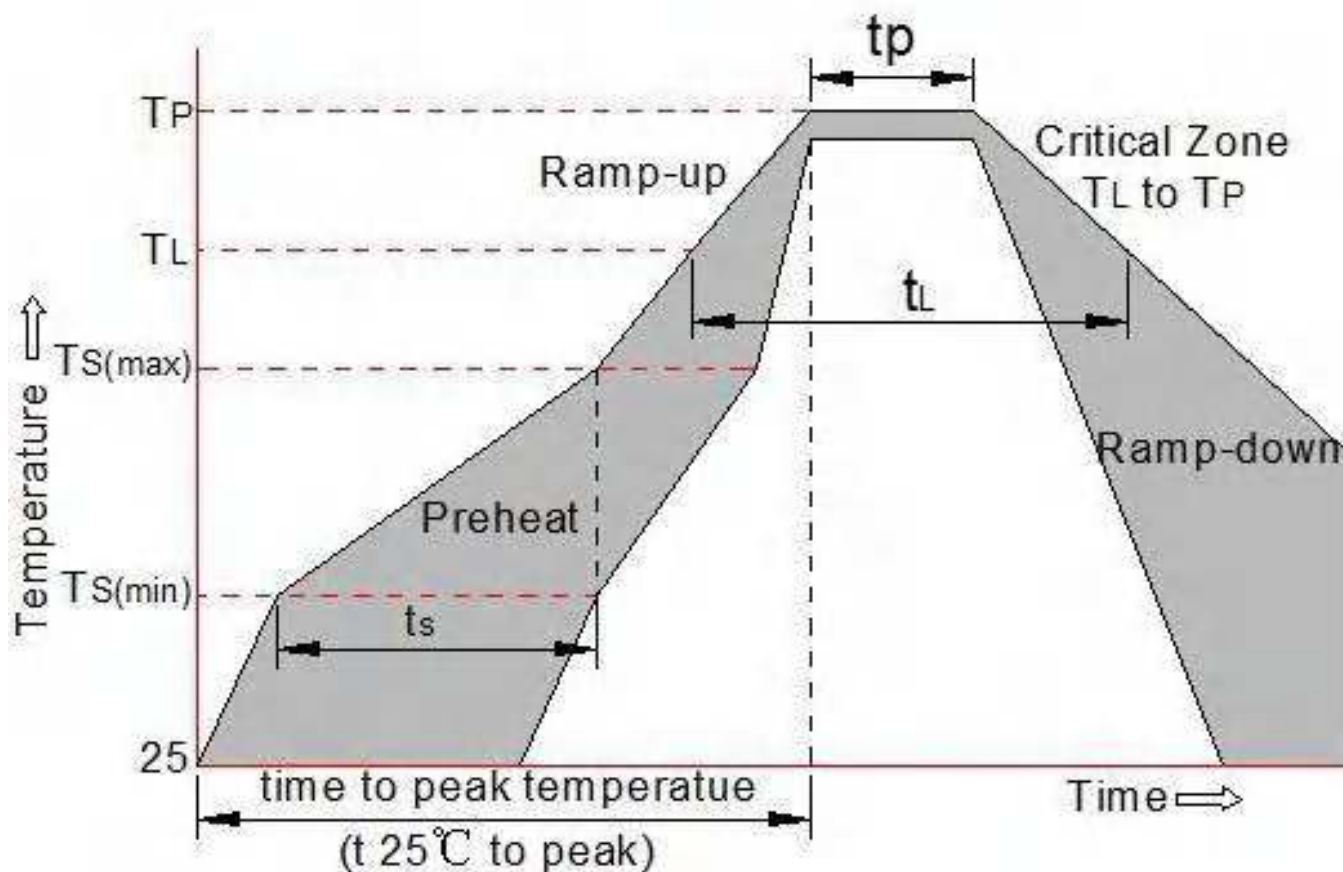
PACKAGE	PACKING CODE	REEL SIZE (inch)	PER REEL (EA)	REEL DIA (mm)	CARTON SIZE (mm)	PER CARTON (EA)	GROSS WEIGHT (Kg)
DFN1006	-T	7	10,000	178	390*205*310	400,000	6.16

RATING AND CHARACTERISTICS CURVES (BAS16DF)

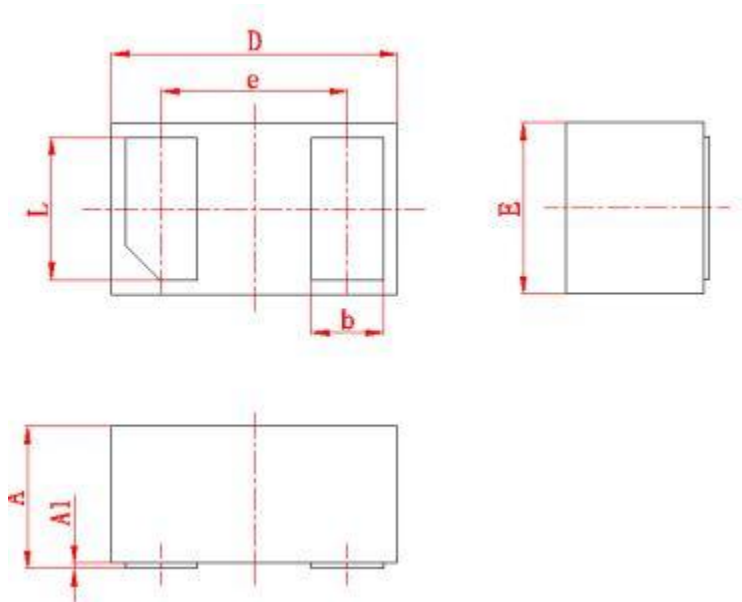


Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (t_s)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L) (Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_p)		8 min. Max
Do not exceed		+260°C

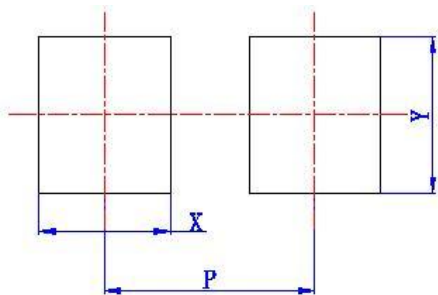


Package mechanical data



Symbol	Millimeters	
	Min	Max
A	0.4	0.5
A1	0	0.05
D	0.9	1.1
E	0.55	0.65
e	(0.65)	
b	0.2	0.3
L	0.34	0.55

Suggested Land Pattern



Symbol	Dimension in Millimeters
	Typ
X	(0.5)
Y	(0.7)
P	(0.8)

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