



Schottky Barrier Diode

Features

- Ultra Small Power Mold Type
- Low I_R
- High Reliability
- Low Current Rectification



CASE: DFN1006-2



Mechanical Data

- Case Material: Molded Plastic, "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminal Connections: Cathode Dot
- Terminals: Finish - NiPdAu annealed over Copper leadframe
Solderable per MIL-STD-202, Method 208
- Weight: 0.001grams (approximate)

Applications

- Mobile Handsets
- MP3 Players
- Digital Camera and Camcorders
- Notebook PCs & PDAs
- GPS

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Value	Unit
V_R	Reverse Voltage (DC)	30	V
I_O	Average Rectified Forward Current	100	mA
I_{FSM}	Forward Current Surge Peak (60Hz/1cyc)	500	mA

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F = 10\text{mA}$	-	-	0.35	V
Reverse Leakage Current	I_R	$V_R = 10\text{V}$			10	μA

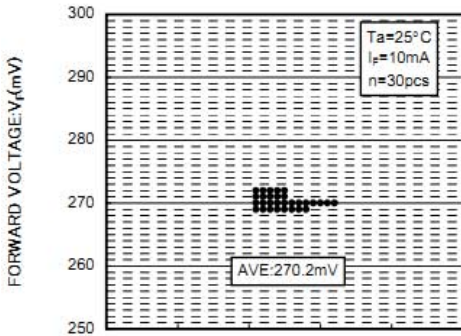
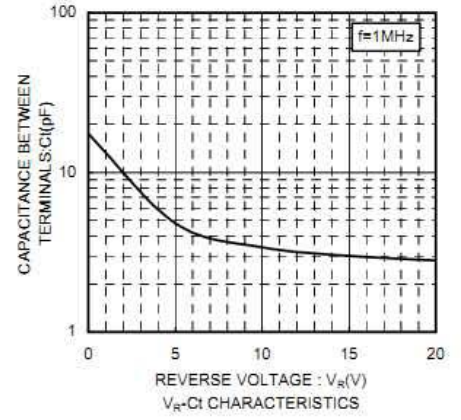
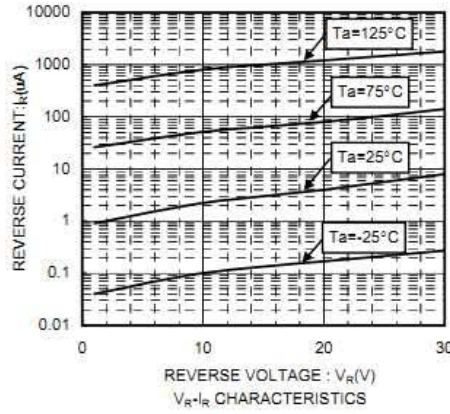
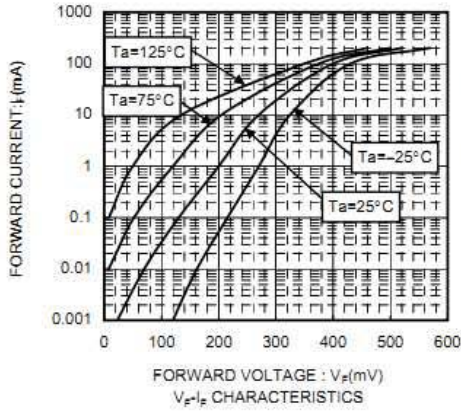
Thermal Characteristics

Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient Air	400	$^{\circ}\text{C}/\text{W}$
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	- 40- +150	$^{\circ}\text{C}$

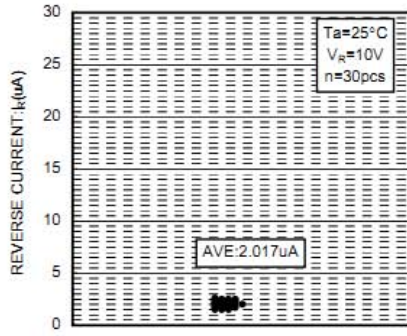


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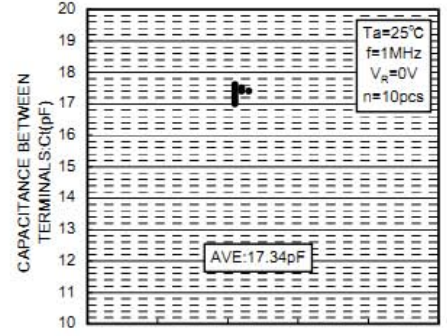
Electrical characteristic curves ($T_A=25^\circ\text{C}$ unless otherwise specified)



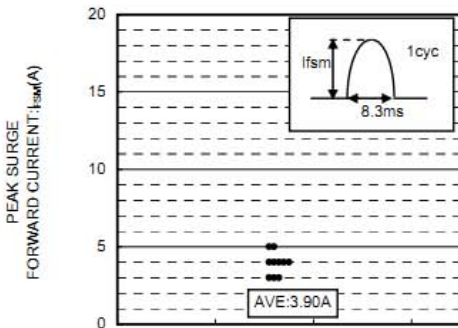
V_F DISPERSION MAP



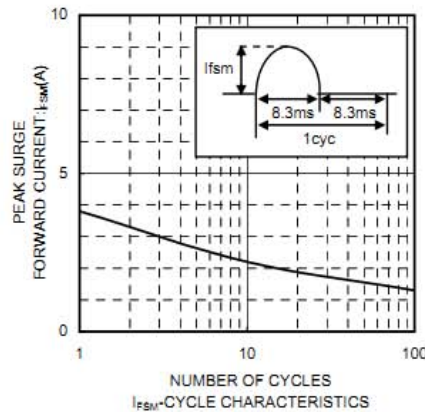
I_R DISPERSION MAP



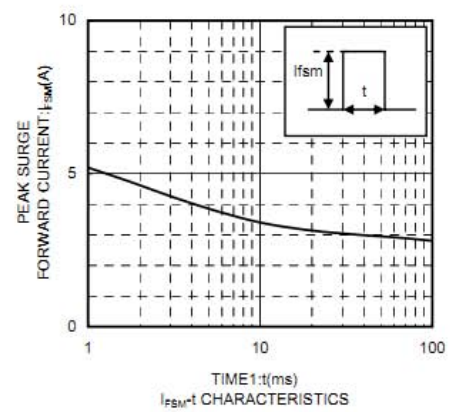
C_t DISPERSION MAP



I_{FSM} DISPERSION MAP

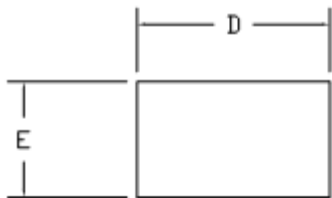


I_{FSM} -CYCLE CHARACTERISTICS

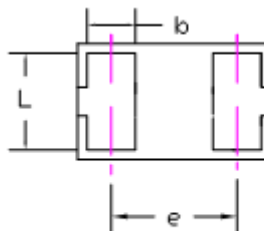


I_{FSM} -t CHARACTERISTICS

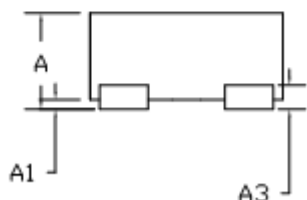
DFN1006-2 Package Outline (Dimensions in mm)



TOP VIEW



BOTTOM VIEW

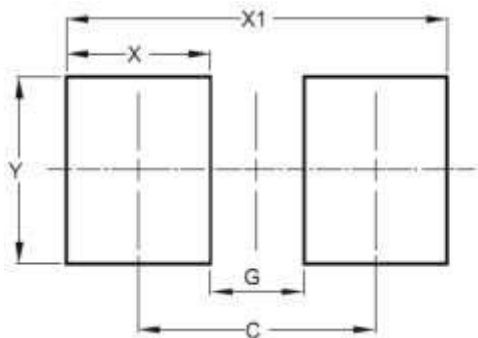


SIDE VIEW

Lead finish: NiPdAu

COMMON DIMENSIONS (MM)			
PKG.	DFN1006-2L		
REF.	MIN.	NOM.	MAX.
A	>0.40	-	0.50
A1	0.00	-	0.05
A3	0.125REF		
D	0.95	1.00	1.05
E	0.55	0.60	0.65
b	0.20	0.25	0.30
L	0.45	0.50	0.55
e	0.65 BSC		

DFN1006-2 Suggested Pad Layout



DIMENSIONS	VALUE (MM)
C	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70