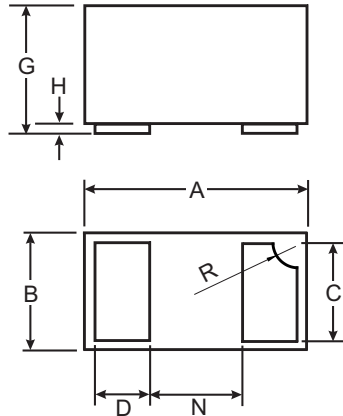


Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Low Capacitance
- **Lead Free By Design/RoHS Compliant (Note 1)**
- **"Green" Device (Note 2)**
- **Qualified to AEC-Q101 Standards for High Reliability**

Mechanical Data

- Case: DFN1006-2
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminal Connections: Cathode Dot
- Terminals: Finish — NiPdAu annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208
- Marking Code: LJ, Dot Denotes Cathode Side
- Ordering Information: See Last Page
- Weight: 0.001 grams



DFN1006-2			
Dim	Min	Max	Typ
A	0.95	1.075	1.00
B	0.55	0.675	0.60
C	0.45	0.55	0.50
D	0.20	0.30	0.25
G	0.47	0.53	0.50
H	0	0.05	0.03
N	—	—	0.40
R	0.05	0.15	0.10
All Dimensions in mm			

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V _{RM}	45	V
Reverse Voltage	V _R	40	V
RMS Reverse Voltage	V _{R(RMS)}	28	V
Average Forward Current	I _O	100	mA
Maximum (Peak) Forward Current	I _{FM}	300	mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 10ms	I _{FSM}	1	A
Operating and Storage Temperature Range	T _J , T _{STG}	-40 to +125	°C

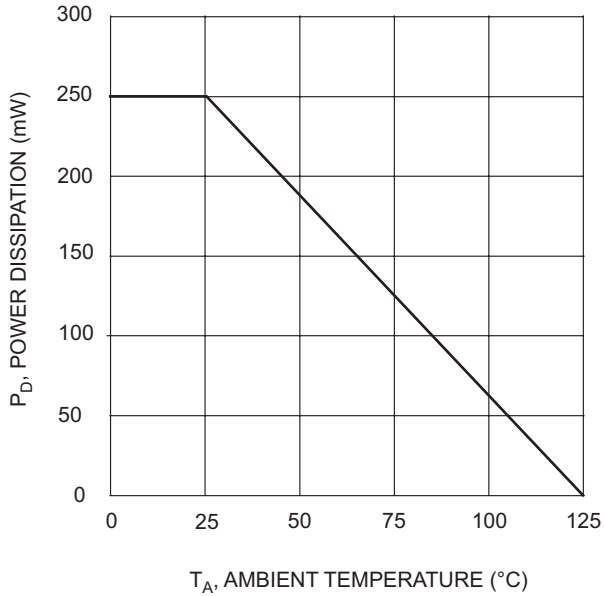
Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation	P _d	250	mW
Thermal Resistance, Ambient Air	R _{θJA}	400	°C/W

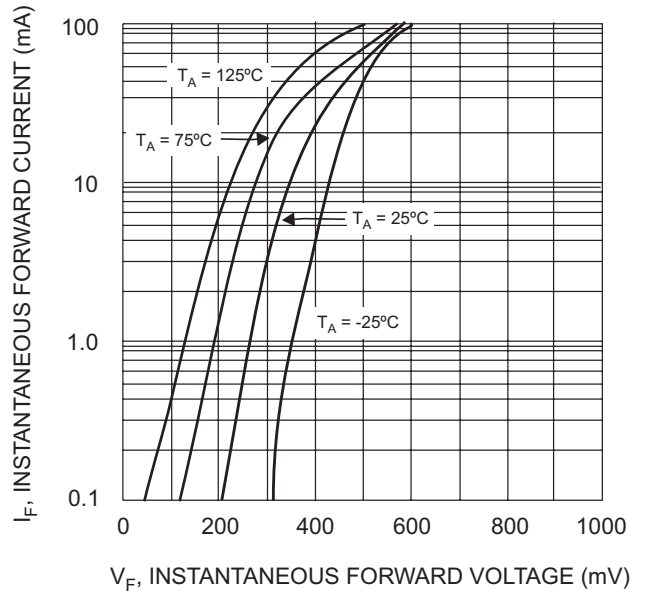
Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 3)	V _{(BR)R}	30	—	—	V	I _R = 100μA
Forward Voltage Drop	V _F	—	280 360 470 580	— — 550 800	mV	I _F = 1.0mA I _F = 15mA I _F = 50mA I _F = 100mA
Reverse Current (Note 3)	I _R	—	—	1.0	μA	V _R = 25V
Total Capacitance	C _T	—	7	15	pF	V _R = 10V, f = 1.0 MHz

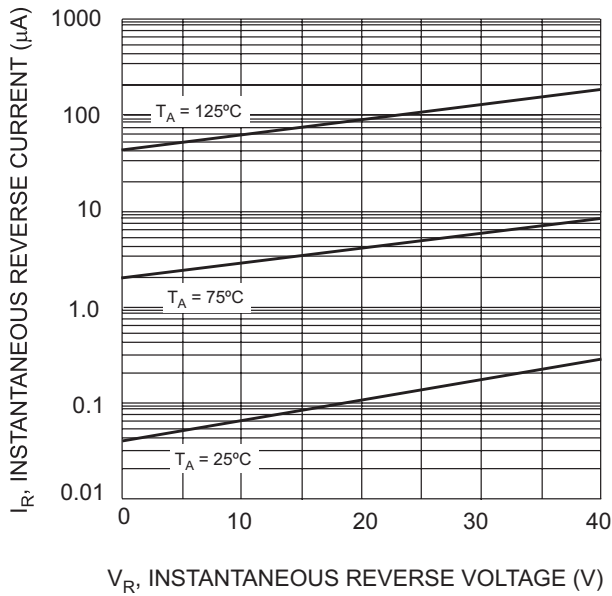
- Note:
1. No purposefully added lead.
 2. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
 3. Short duration pulse test used so as to minimize self-heating effect.



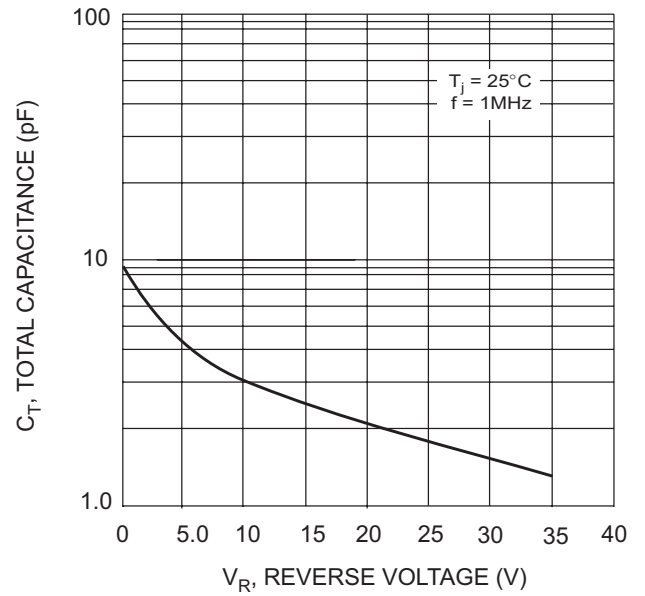
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Power Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (mV)
Fig. 2 Typical Forward Characteristics



V_R , INSTANTANEOUS REVERSE VOLTAGE (V)
Fig. 3 Typical Reverse Characteristics



V_R , REVERSE VOLTAGE (V)
Fig. 4 Total Capacitance vs. Reverse Voltage

Ordering Information (Note 4)

Device	Packaging	Shipping
SDM10U45LP-7	DFN1006-2	3000/Tape & Reel

Note: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



LJ = Product Type Marking Code, Dot Denotes Cathode Side

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