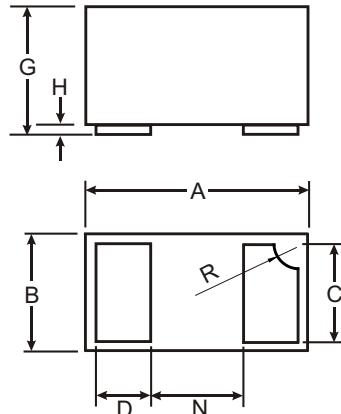


**Features**

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Low Capacitance
- Ultra-Small Surface Mount Package
- 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: LM, 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<sub>A</sub> = 25 C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	30	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21	V
Maximum (Peak) Forward Current	I <sub>FM</sub>	200	mA
Peak Forward Surge Current 8.3ms Half Sine	I <sub>FSM</sub>	1.0	A
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +125	C

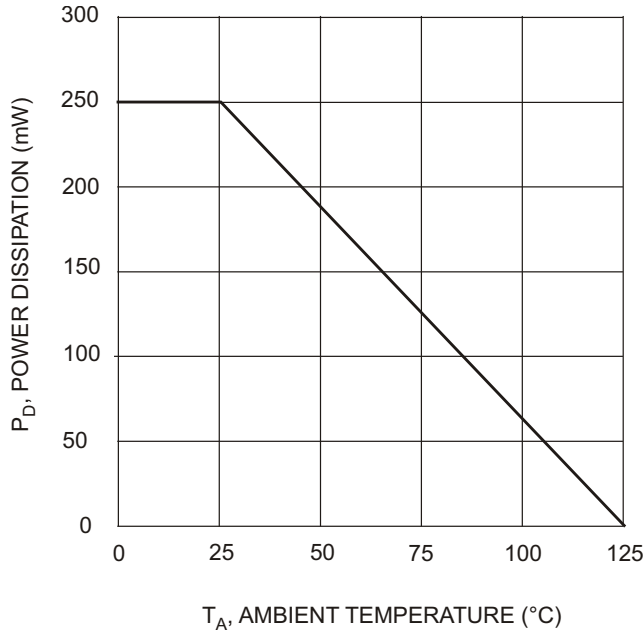
**Thermal Characteristics** @ T<sub>A</sub> = 25 C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation	P <sub>d</sub>	250	mW
Thermal Resistance, Junction to Ambient Air	R <sub>JA</sub>	400	C/W

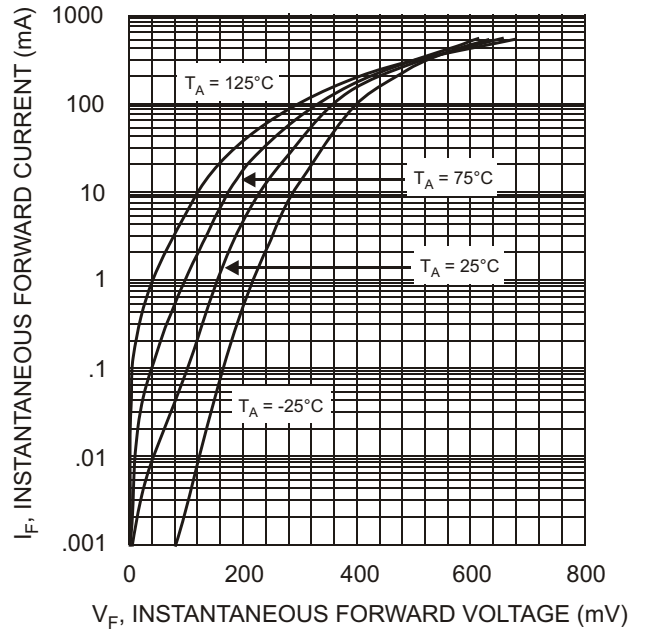
**Electrical Characteristics** @ T<sub>A</sub> = 25 C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 3)	V <sub>(BR)R</sub>	30			V	I <sub>R</sub> = 150 A
Forward Voltage Drop	V <sub>F</sub>			350 575	mV	I <sub>F</sub> = 20mA I <sub>F</sub> = 200mA
Peak Reverse Current (Note 3)	I <sub>R</sub>			150 30	A A	V <sub>R</sub> = 30V V <sub>R</sub> = 10V
Total Capacitance	C <sub>T</sub>		20		pF	V <sub>R</sub> = 0V, f = 1.0MHz

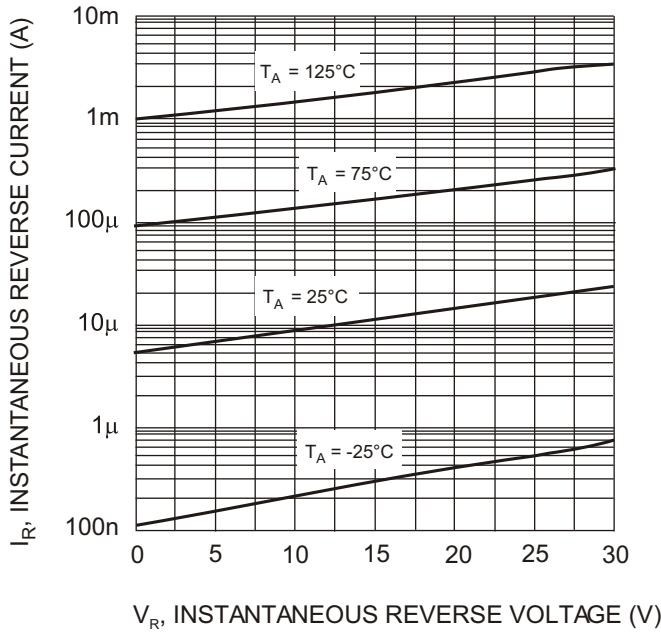
- Note:
1. No purposefully added lead.
  2. Diodes Inc.'s "Green" policy can be found on our website at [http://www.diodes.com/products/lead\\_free/index.php](http://www.diodes.com/products/lead_free/index.php).
  3. Short duration pulse test used so as to minimize self-heating effect.



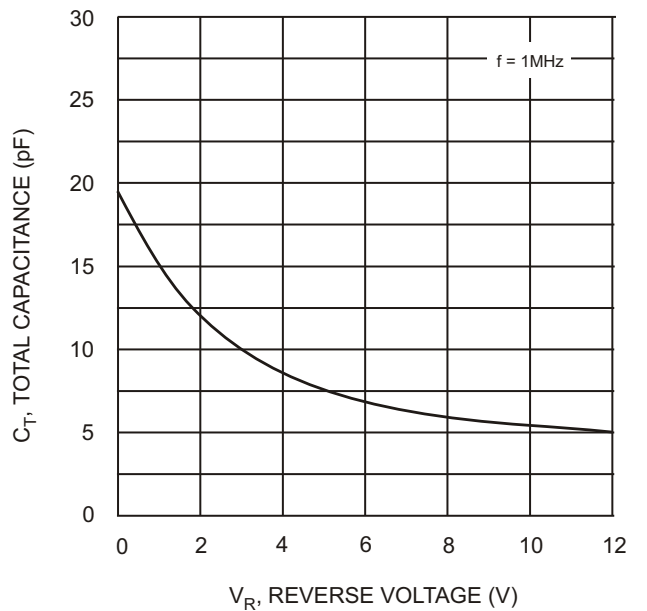
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Power Derating Curve



$V_F$ , 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 Typical Total Capacitance vs. Reverse Voltage

**Ordering Information** (Note 4)

Device	Packaging	Shipping
SDM20U30LP-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**



LM = Product Type Marking Code, Dot Denotes Cathode Side

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