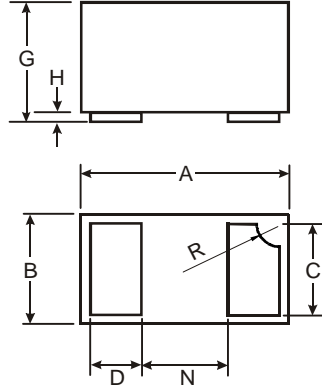


Features

- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Leadless Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- **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 over Copper leadframe. Solderable per MIL-STD-202, Method 208
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.001 grams



DFN1006H4-2			
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	0.34	0.4	0.37
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
Peak Repetitive Reverse Voltage	V _{RRM}	30	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
Forward Continuous Current	I _F	200	mA
Repetitive Peak Forward Current	I _{FRM}	300	mA
Forward Surge Current @ t < 1.0s	I _{FSM}	600	mA

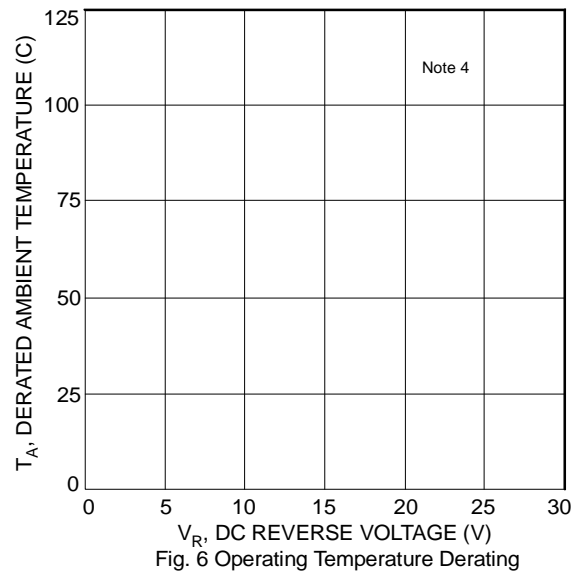
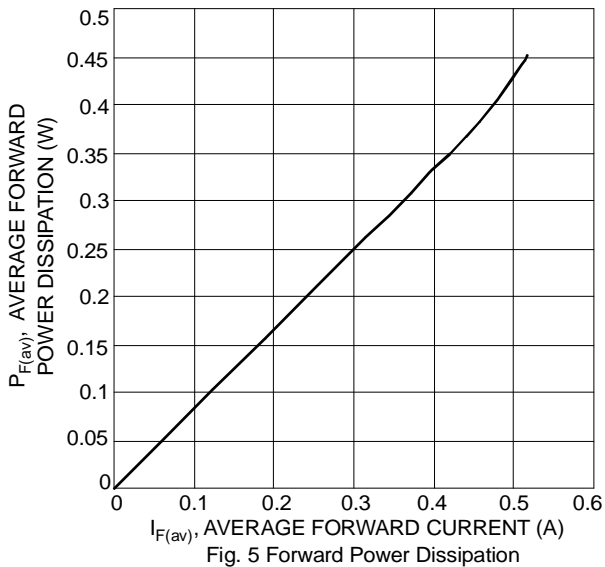
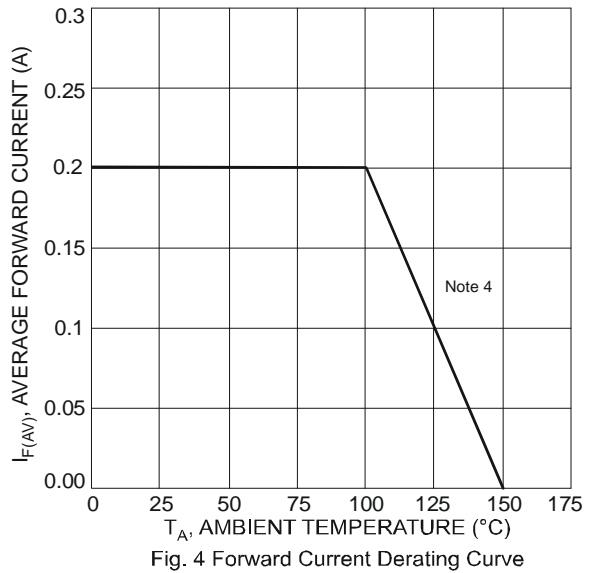
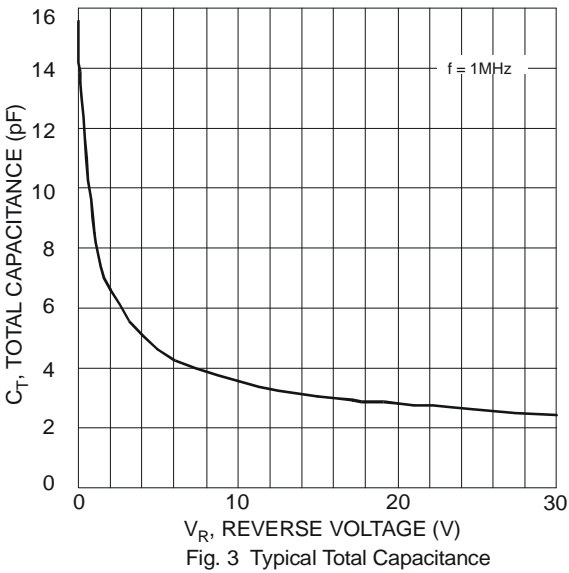
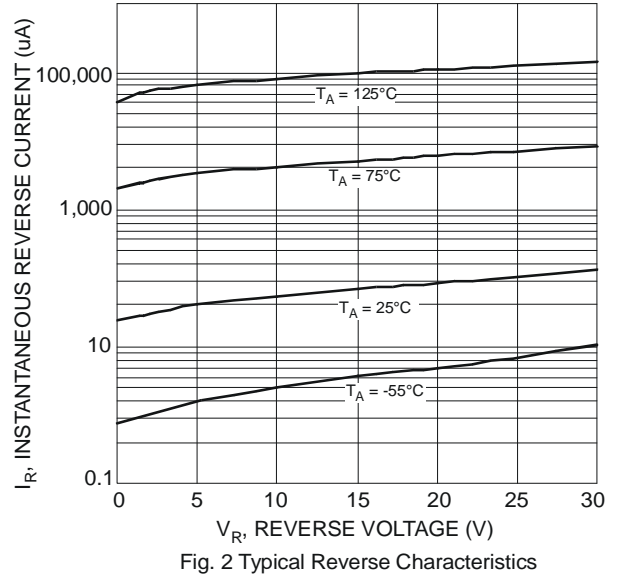
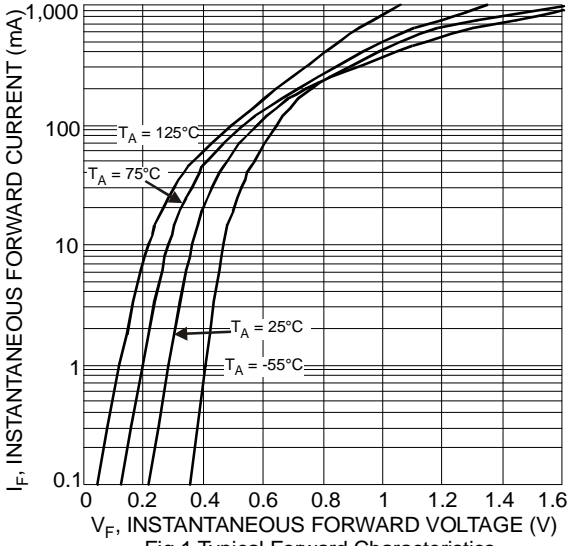
Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 4)	P _d	250	mW
Thermal Resistance, Junction to Ambient Air (Note 4)	R _{θJA}	400	°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +125	°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 3)	V _{(BR)R}	30	—	—	V	I _R = 100μA
Forward Voltage	V _F	—	—	320	mV	I _F = 1mA
			—	400		I _F = 10mA
			428	500		I _F = 30mA
			580	650		I _F = 100mA
Reverse Leakage Current (Note 3)	I _R	—	—	2.0	μA	V _R = 25V
Total Capacitance	C _T	—	—	10	pF	V _R = 1.0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	—	5.0	ns	I _F = 10mA through I _R = 10mA to I _R = 1.0mA, R _L = 100Ω

- Notes:
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 to minimize self-heating effect.
 4. Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.



Ordering Information (Note 5)

Device	Packaging	Shipping
BAT54LPS-7	DFN1006H4-2	3000/Tape & Reel

Notes: 5. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



L2 = Product Type Marking Code, Dot Denotes Cathode Side

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