1N5806C
150V Axial Leaded Superfast Rectifier Diode

HIGH-RELIABILITY PRODUCTS

Features

V_R = 150V
I_R = 5.0µA
trr = 25ns
V_F = 0.875V at I_F = 1.0A

Quick Reference Data

- Low reverse leakage current
- Very low reverse recovery time
- Hermetically sealed
- Good thermal shock resistance
- Low forward voltage drop

Absolute Maximum Ratings

Electrical specifications @ T_A = 25°C unless otherwise specified.

Parameter	Symbol	1N5806C	Units
Maximum Reccurrent Peak Reverse Voltage	V_{RRM}	150	V
Maximum RMS Voltage	V_{RMS}	112	V
Maximum DC blocking Voltage	Vdc	150	V
Maximum Average Forward Rectified Current 3/8"lead length at T_A=-55°C	I_{FAV}	2.5	A
Peak Forward Surge Current 8.3ms single Half sinewave superimposed on rated load	I_{FSM}	30	A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.875	V
Maximum DC Reverse Current T_A =25°C at rated DC blocking voltage T_A =150°C	I_R	5.0 200	µA
Maximum Reverse Recovery Time(1)	trr	25	ns
Typical Junction Capacitance(2)	C_J	25	pF
Typical Thermal Resistance(3)	$R_{\theta JL}$	45	°C/W
Storage and Operating Juntion Temperature	T_{STG}, T_J	-65 to +175	°C

Note:
1. Reverse Recovery Condition I_F =0.5A, I_R =0.5A, I_{RR} =0.05A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length.

Rating and Characteristic Curves

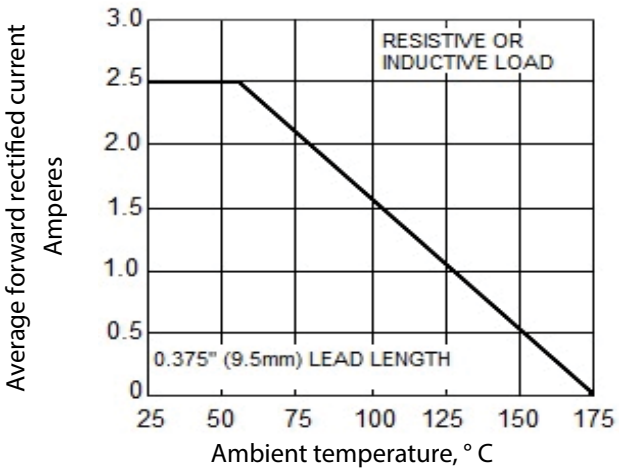


Figure 1. Forward current derating curve

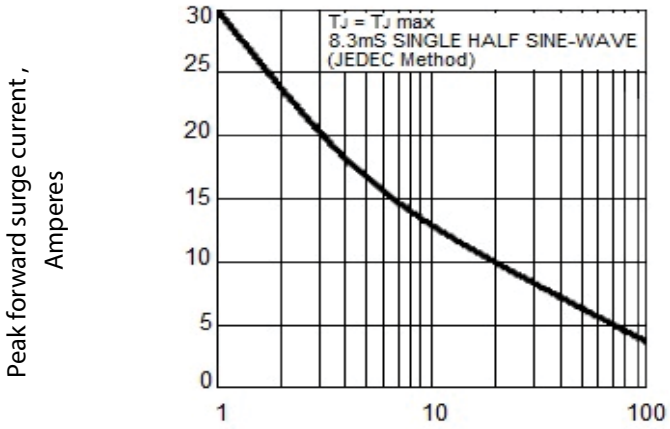


Figure 2. Maximum non-repetitive peak forward surge current

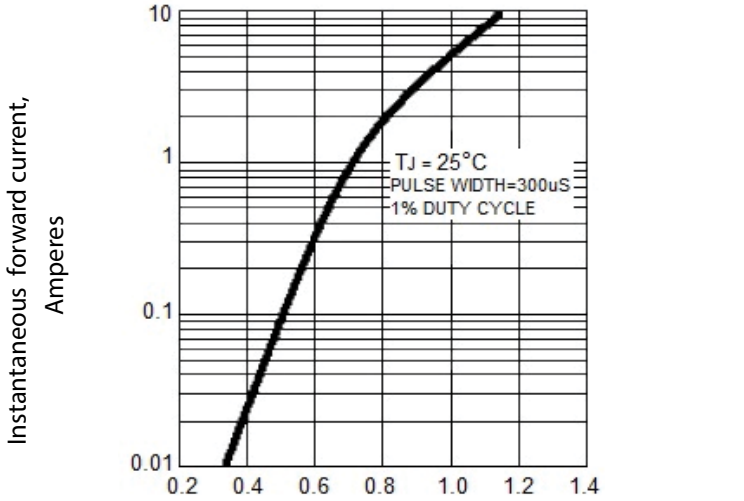


Figure 3. Typical instantaneous forward characteristics

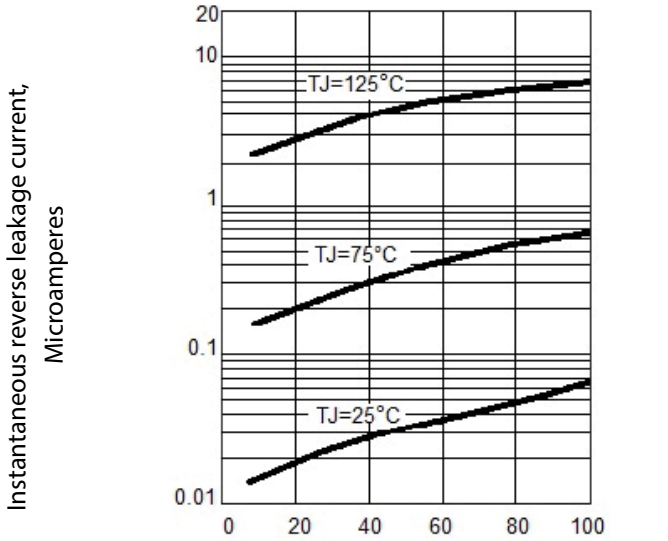


Figure 4. Typical reverse characteristics

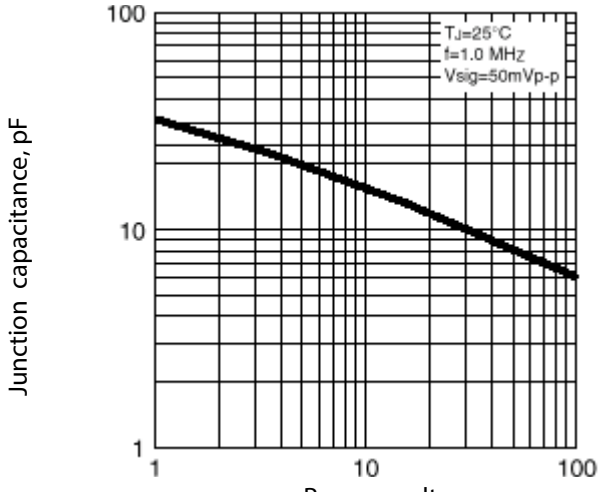


Figure 5. Typical junction capacitance

Ordering Information

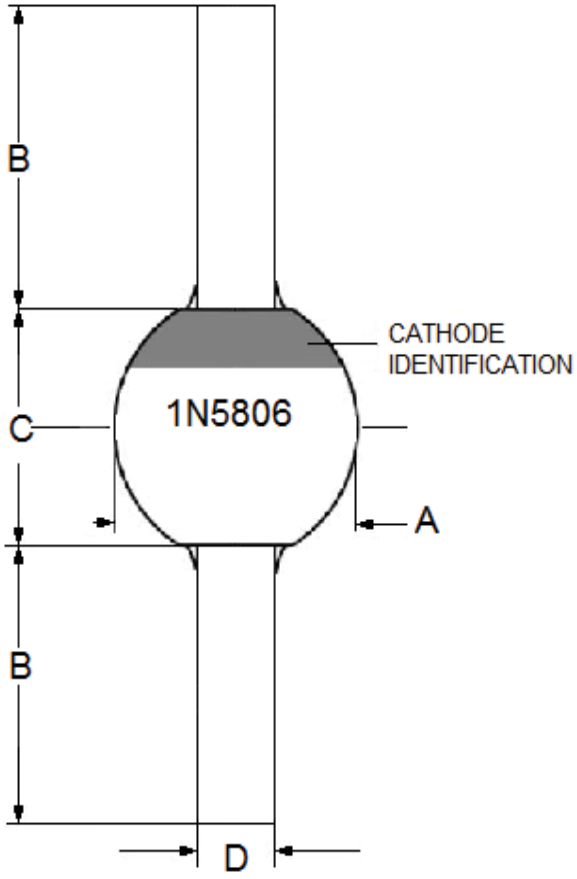
Part Number	Packaging[1]
1N5806C	Bulk
1N5806C.TR	Tape and reel

NOTE:
(1)Please consult factory for quantities

Marking

Component will have a cathode band identifier and marked 1N5806

Outline Drawing



Dimension	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	-	0.142	-	3.60
B	1.014	-	26.00	-
C	-	0.157	-	4.00
D	-	0.032	-	0.82