

HIGH-RELIABILITY PRODUCTS

Features

$V_R = 150V$
 $I_R = 5.0\mu A$
 $t_{rr} = 25ns$
 $V_F = 0.875V$ 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 @ $T_A = 25^\circ C$ unless otherwise specified.

Parameter	Symbol	1N5806C	Units
Maximum Reccurent 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 $T_A = -55^\circ C$	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 $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 150^\circ C$	I_R	5.0 200	μA
Maximum Reverse Recovery Time ⁽¹⁾	t _{rr}	25	ns
Typical Junction Capacitance ⁽²⁾	C_J	25	pF
Typical Thermal Resistance ⁽³⁾	$R_{\theta JL}$	45	$^\circ C/W$
Storage and Operating Juntion Temperature	T_{STG}, T_J	-65 to +175	$^\circ C$
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

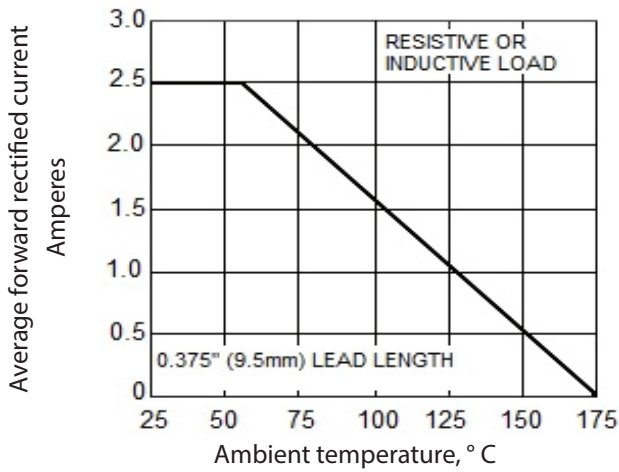


Figure 1. Forward current derating curve

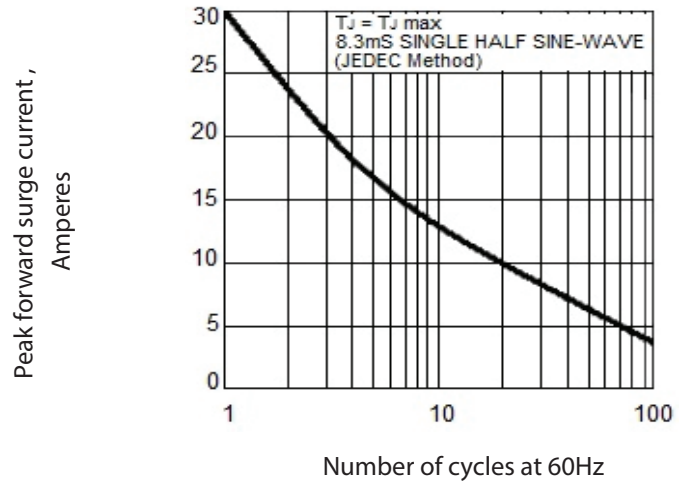


Figure 2. Maximum non-repetitive peak forward surge current

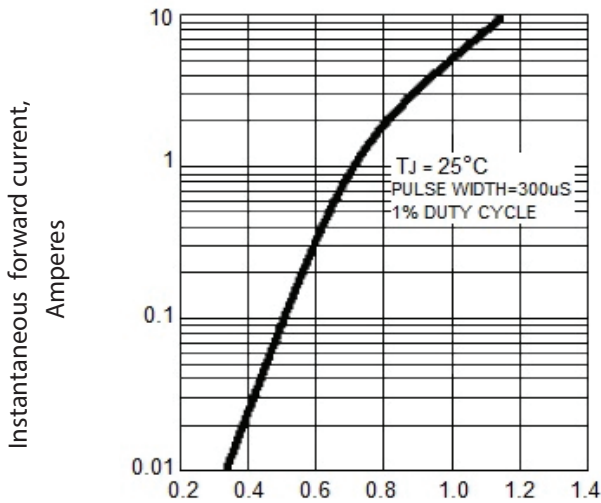


Figure 3. Typical instantaneous forward characteristics

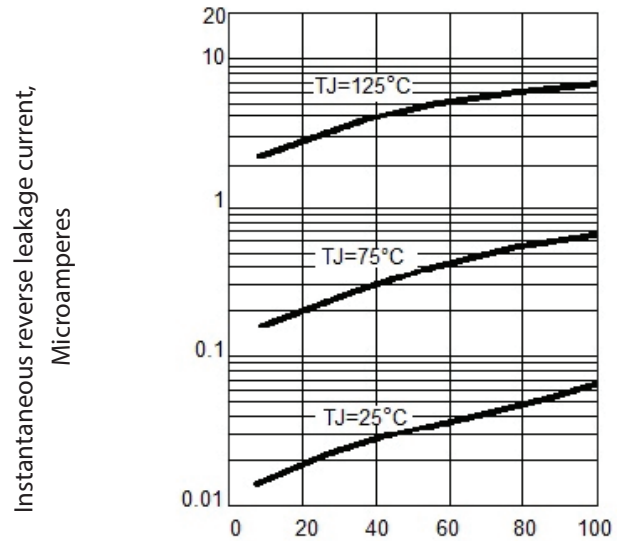


Figure 4. Typical reverse characteristics

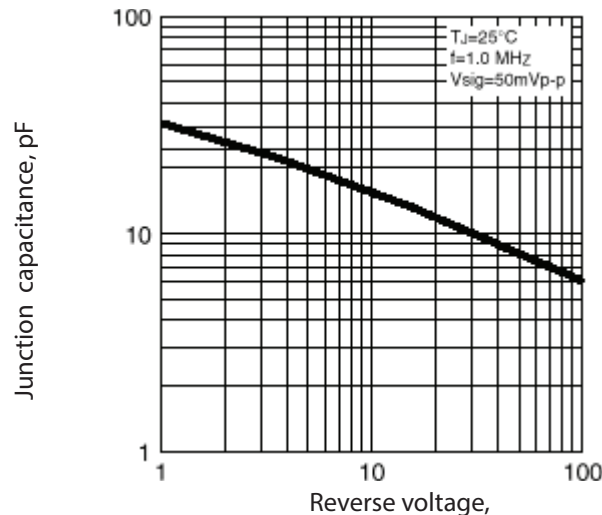


Figure 5. Typical junction capacitance

Ordering Information

Part Number	Packaging ⁽¹⁾
1N5806C	Bulk
1N5806C.TR	Tape and reel

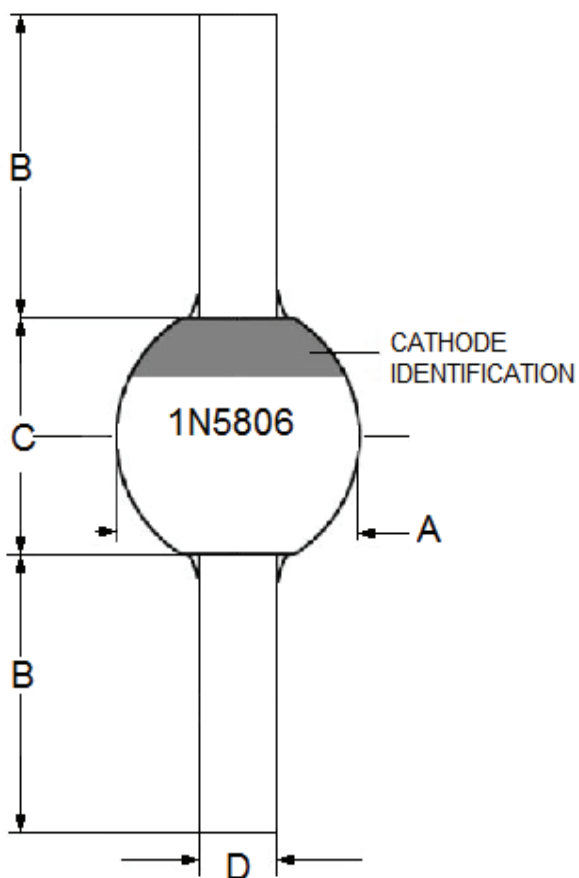
NOTE:

(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



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