

### HIGH-RELIABILITY PRODUCTS

#### Features

$V_R = 400V$   
 $I_R = 1.0\mu A$   
 $t_{rr} = 150ns$   
 $V_F = 1.6V$  at  $I_F = 3A$

#### Quick Reference Data

- ◆ Low reverse leakage current
- ◆ Hermetically sealed
- ◆ Good thermal shock resistance
- ◆ Fast Trr
- ◆ Low forward voltage drop

### Absolute Maximum Ratings

Electrical specifications @  $T_A = 25^\circ C$  unless otherwise specified.

Parameter	Symbol	1N5617C	Units
Maximum Reccurent Peak Reverse Voltage	$V_{RRM}$	400	V
Maximum RMS Voltage	$V_{RMS}$	280	V
Maximum DC blocking Voltage	Vdc	400	V
Maximum Average Forward Rectified Current 3/8"lead length at $T_A=55^\circ C$	$I_{F(av)}$	1.0	A
Peak Forward Surge Current 8.3ms single Half sinewave superimposed on rated load	$I_{FSM}$	25	A
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	1.6	V
Maximum DC Reverse Current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 100^\circ C$	$I_R$	1.0 25	$\mu A$
Maximum Reverse Recovery Time <sup>(1)</sup>	t <sub>rr</sub>	150	ns
Typical Junction Capacitance <sup>(2)</sup>	$C_J$	40	pF
Typical Thermal Resistance <sup>(3)</sup>	$R_{\theta JL}$	45	$^\circ C/W$
Storage and Operating Juntion Temperature	$T_{STG}, T_J$	-65 to +175	$^\circ C$
Note: 1. Reverse Recovery Condition $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$ 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

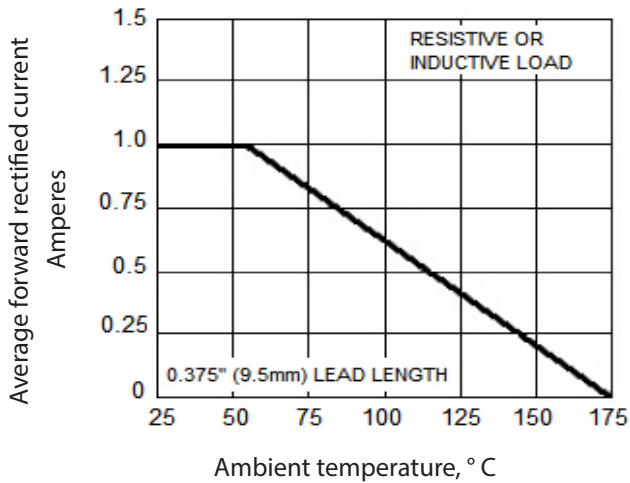


Figure 1. Forward current derating curve

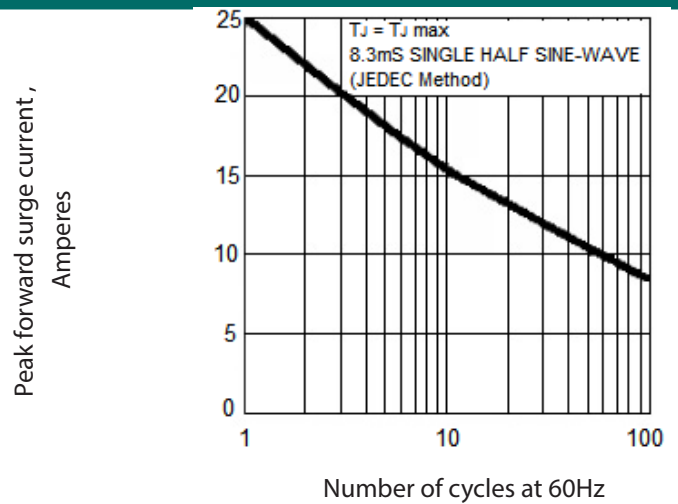


Figure 2. Maximum non-repetitive peak forward surge current

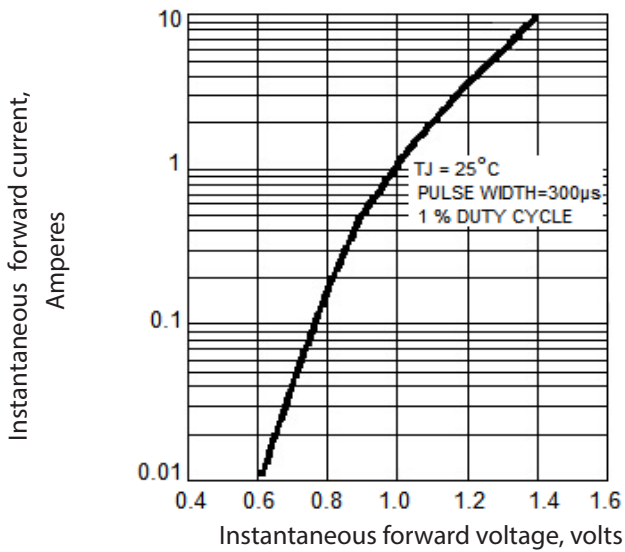


Figure 3. Typical instantaneous forward characteristics

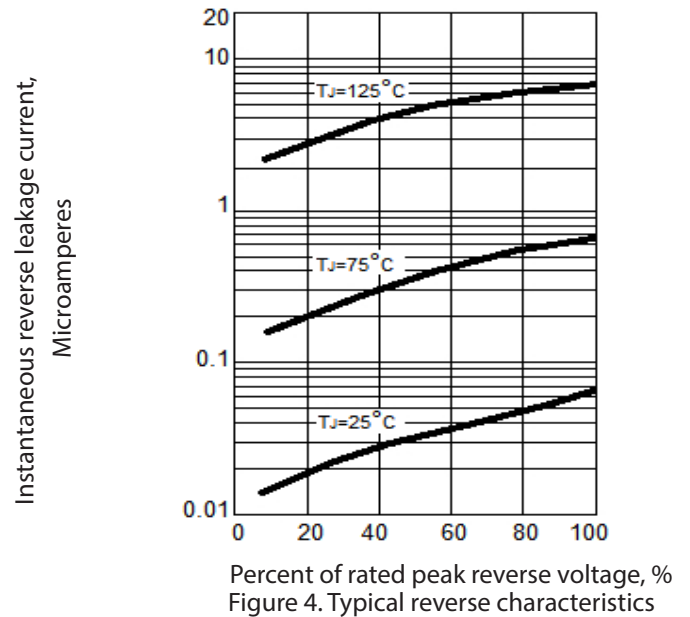


Figure 4. Typical reverse characteristics

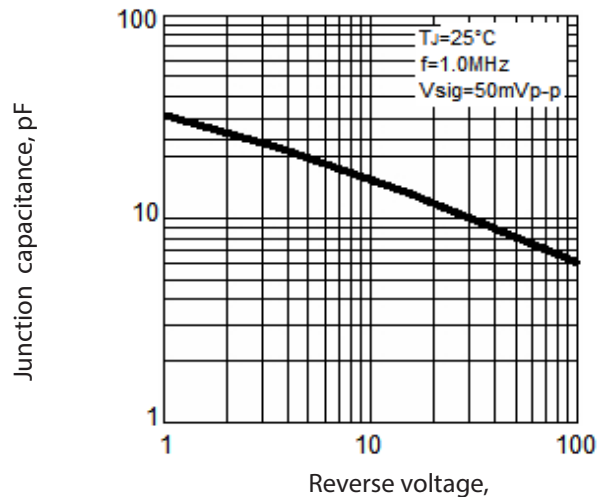


Figure 5. Typical junction capacitance

## Ordering Information

Part Number	Packaging <sup>(1)</sup>
1N5617C	Bulk
1N5617C.TR	Tape and reel

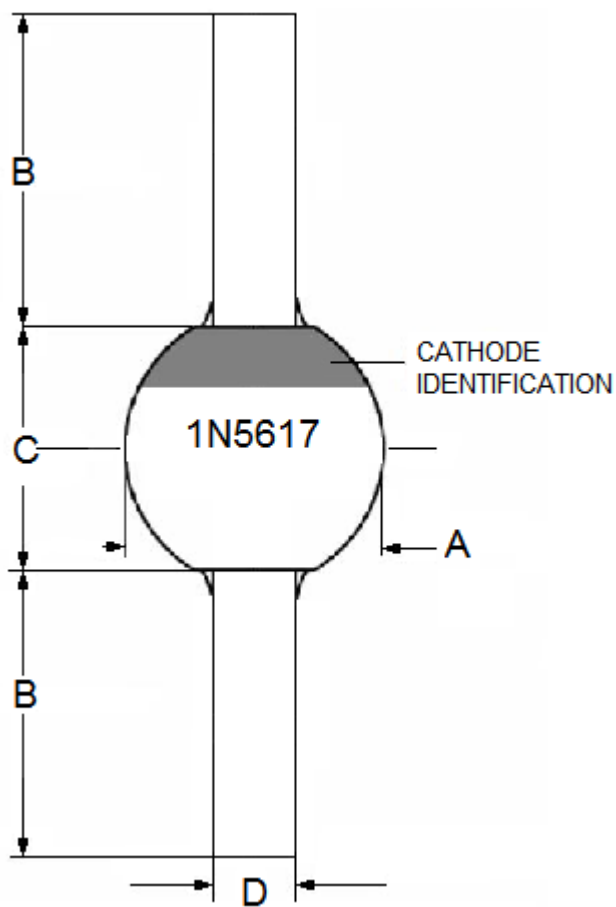
NOTE:

(1)Please consult factory for quantities

## Marking

Component will have a cathode band identifier and marked 1N5617

## Outline Drawing



Dimension	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	-	0.140	-	3.60
B	1.014	-	26.00	-
C	-	0.156	-	4.00
D	-	0.032	-	0.82



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