

HIGH-RELIABILITY PRODUCTS

Features

$V_R = 200V$ to $1000V$
 $I_R = 0.5\mu A$
 $T_{rr} = 3.0\mu s$
 $V_F = 1.2V$ at $I_F = 1A$

Quick Reference Data

- ◆ Low reverse leakage current
- ◆ Hermetically sealed
- ◆ Good thermal shock resistance
- ◆ Fast T_{rr}
- ◆ Low forward voltage drop

Absolute Maximum Ratings

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

Parameter		1N5614C	1N5616C	1N5618C	1N5620C	1N5622C	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	800	1000	V
Maximum DC blocking Voltage	V_{DC}	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) 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}	50.0					A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.2					V
Maximum DC Reverse Current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 100^\circ C$	I_R	0.5 25					μA
Maximum Reverse Recovery Time ⁽¹⁾	T_{rr}	3.0					μs
Typical Junction Capacitance ⁽²⁾	C	45.0					pF
Maximum Reverse Breakdown Voltage $I_R = 50 \mu A$	V_{BR}	220	440	660	880	1100	V
Typical Thermal Resistance ⁽³⁾	$R_{\theta JL}$	55.0					$^\circ C/W$
Storage and Operating Junction 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 12Vdc
3. Thermal Resistance from Junction to Ambient at 3/8" lead length.

Rating and Characteristic Curves

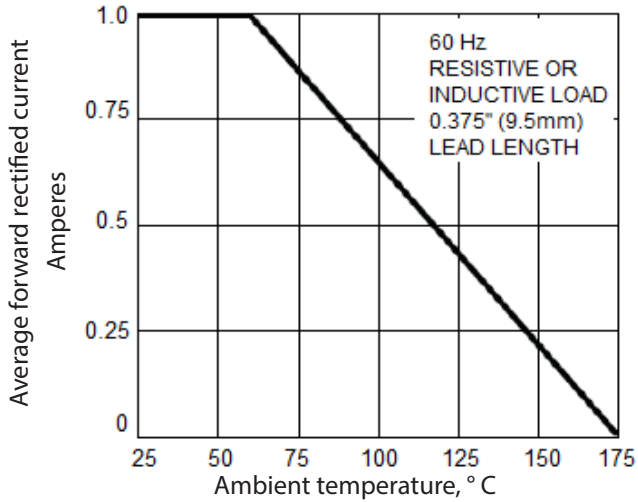


Figure 1. Forward current derating curve

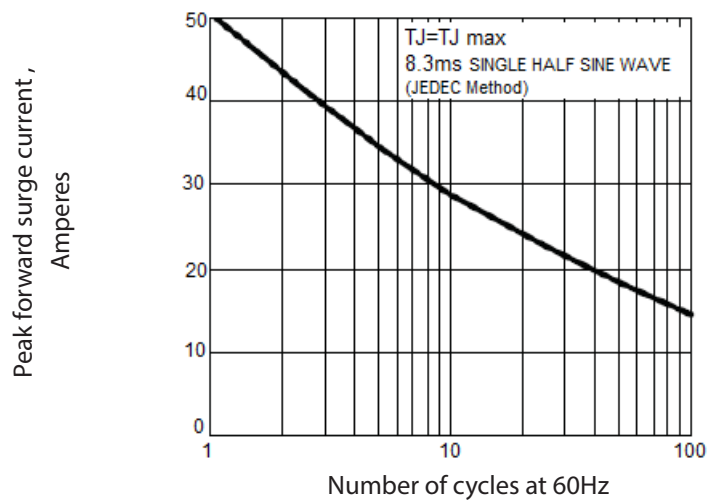


Figure 2. Maximum non-repetitive peak forward surge current

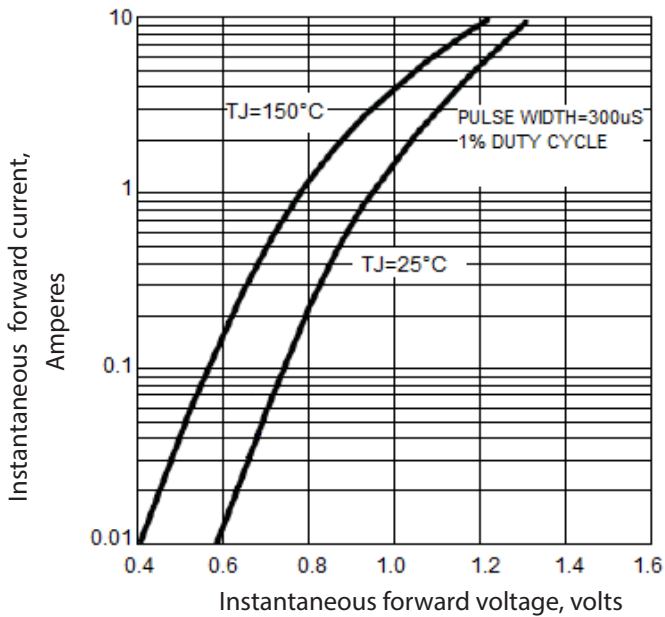


Figure 3. Typical instantaneous forward characteristics

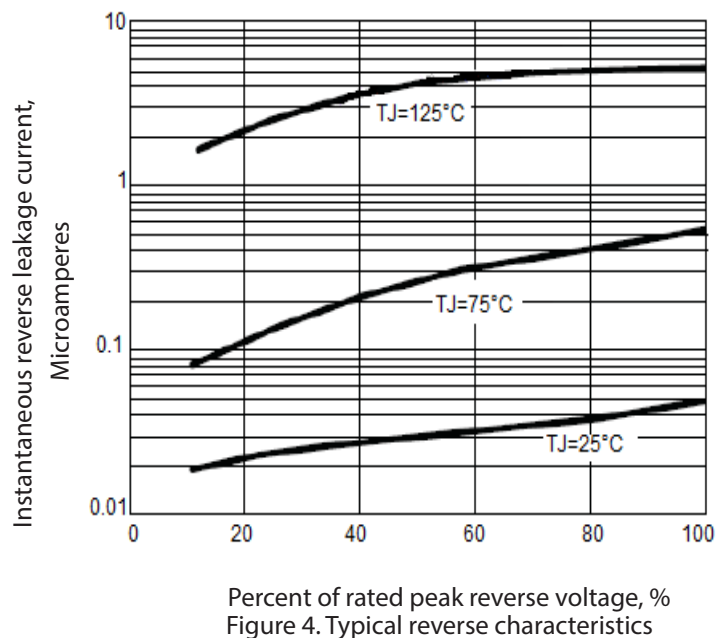


Figure 4. Typical reverse characteristics

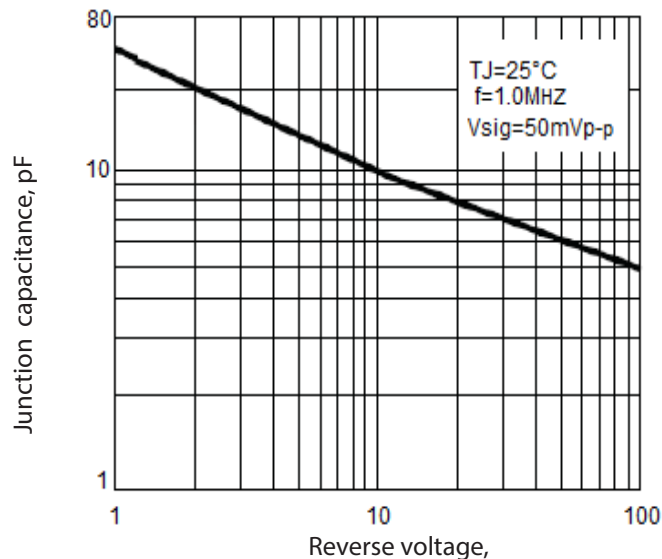


Figure 5. Typical junction capacitance

Ordering Information

Part Number	Packaging ⁽¹⁾
1N5614C Thru 1N5622C	Bulk
1N5614C.TR Thru 1N5622C.TR	Tape and reel

NOTE:

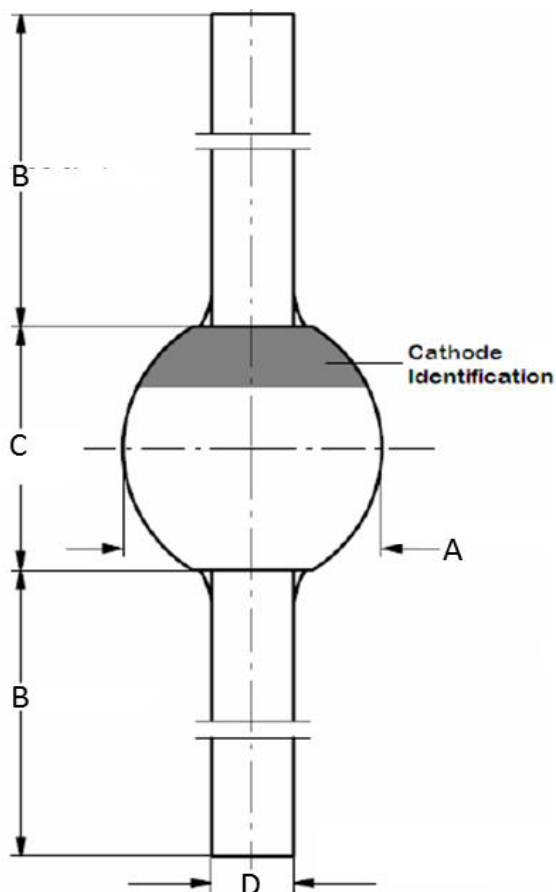
(1)Please consult factory for quantities

Marking

Component will only have a cathode band identifier.

The full part number will be on the box label.

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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