

HIGH-RELIABILITY PRODUCTS

Features

VR = 200V
 IR = 5.0μA
 trr = 150ns
 VF = 1.3V at IF = 1A

Quick reference data

- ◆ Low reverse leakage current
- ◆ Plastic sealed
- ◆ Good thermal shock resistance
- ◆ Low forward voltage drop

Absolute Maximum Ratings

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

Parameter	Symbol	1N4942C	Units
Maximum Reccurent Peak Reverse Voltage	V _{RRM}	200	V
Maximum RMS Voltage	V _{RMS}	140	V
Maximum DC blocking Voltage	V _{dc}	200	V
Maximum Average Forward Rectified Current 3/8"lead length at T _A =55°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 1.0A and 25°C	V _F	1.3	V
Maximum DC Reverse Current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5.0 200	μA
Maximum Reverse Recovery Time ⁽¹⁾	trr	150	ns
Typical Junction Capacitance ⁽²⁾	C _J	15	pF
Typical Thermal Resistance ⁽³⁾	R _{θJL}	55	°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 = 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

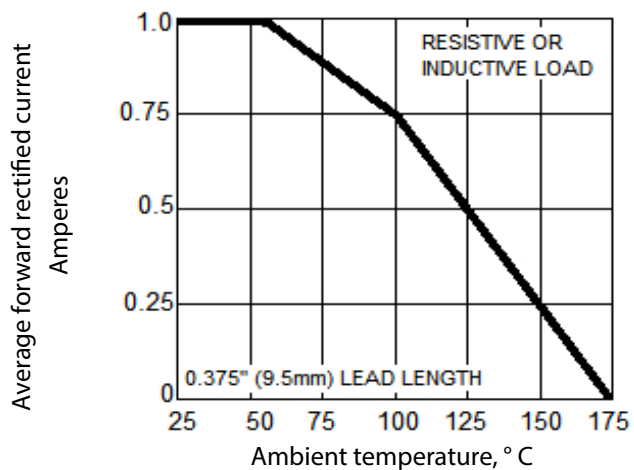


Figure 1. Forward current derating curve

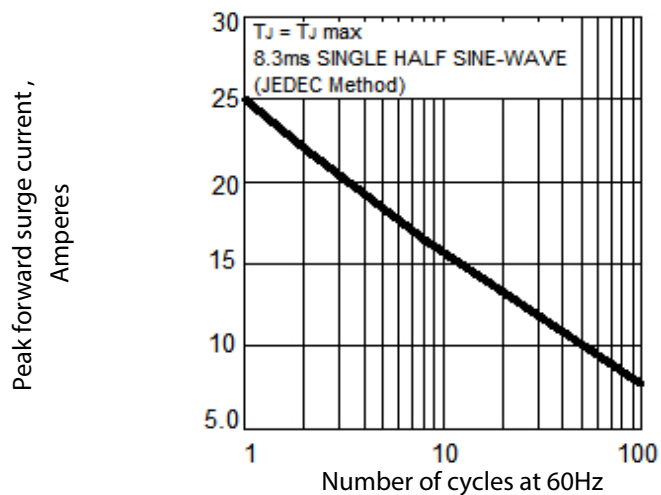


Figure 2. Maximum non-repetitive peak forward surge current

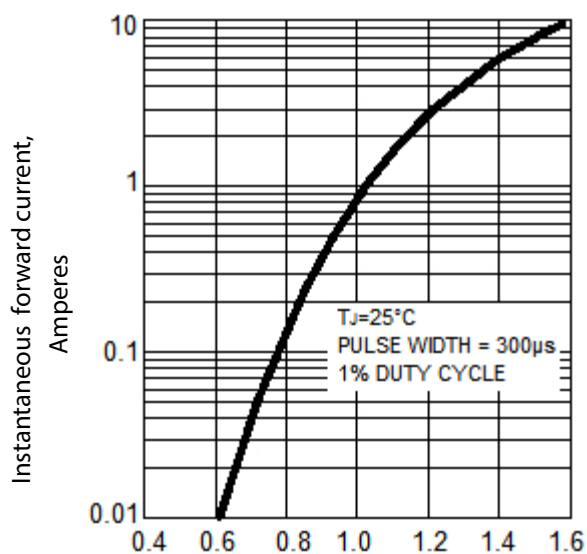


Figure 3. Typical instantaneous forward characteristics

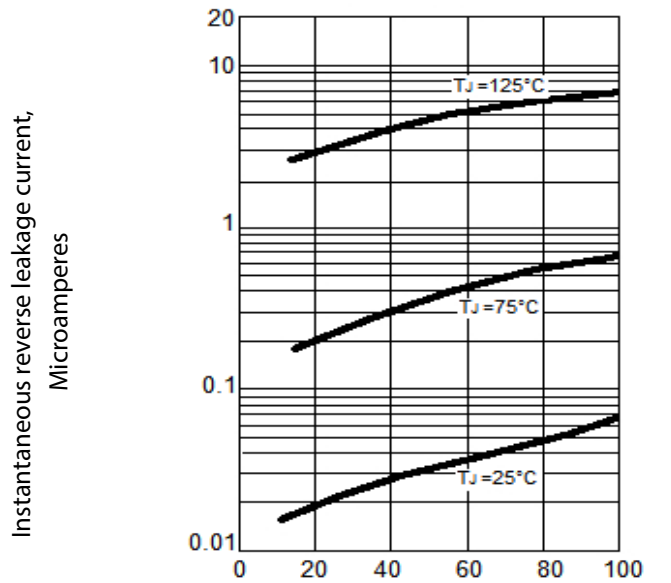


Figure 4. Typical reverse characteristics

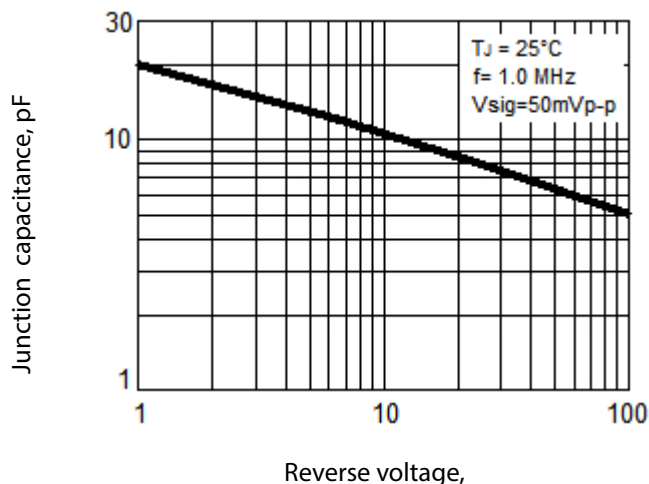


Figure 5. Typical junction capacitance

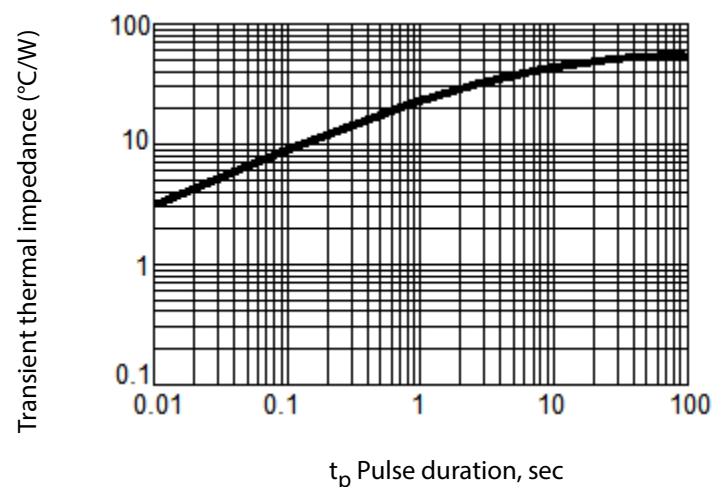


Figure 6. Typical transient thermal impedance

Ordering Information

Part Number	Packaging ⁽¹⁾
1N4942C	Bulk
1N4942C.TR	Tape and reel

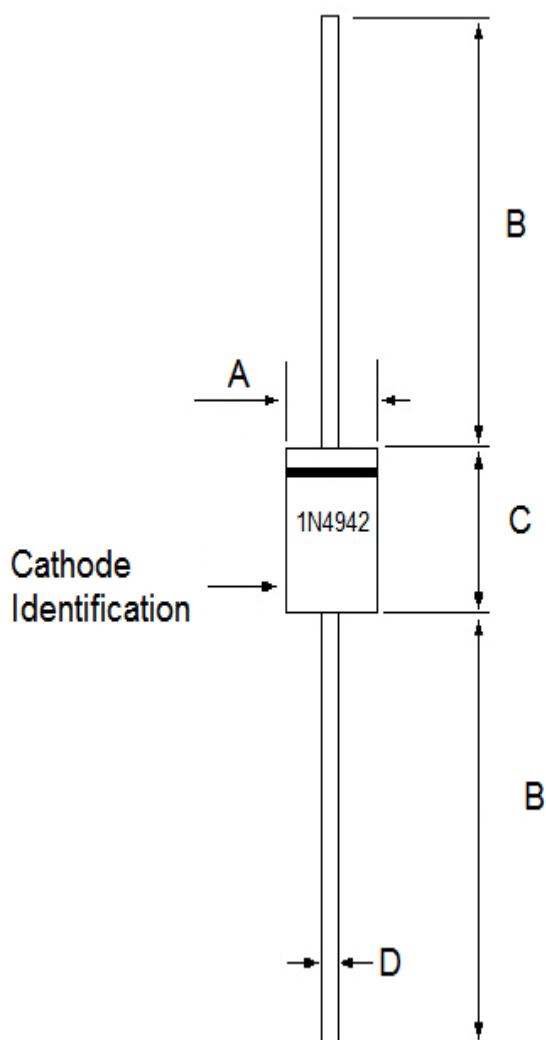
NOTE:

(1)Please consult factory for quantities

Marking

Component will have a cathode band identifier and marked 1N4942

Outline Drawing



Dimension	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.080	0.107	2.00	2.70
B	1.000	-	25.40	-
C	0.160	0.205	4.10	5.20
D	0.028	0.034	0.71	0.86