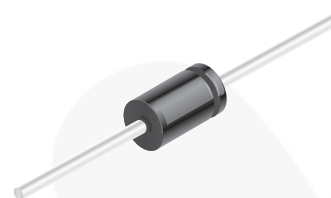


# 1N5393 / 1N5397

## General-Purpose Rectifiers

### Features

- 1.5 A Operation at  $T_A = 75^\circ\text{C}$  with No Thermal Runaway
- High Current Capability
- Low Leakage



**DO-15**  
Color Band Denotes Cathode

### Absolute Maximum Ratings<sup>(1)</sup>

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Value		Units
		1N5393	1N5397	
$V_{RRM}$	Peak Repetitive Reverse Voltage	200	600	V
$I_{F(AV)}$	Average Rectified Forward Current .375-inch Lead Length at $T_A = 75^\circ\text{C}$	1.5		A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine Wave	50		A
$T_{STG}$	Storage Temperature Range	-55 to +150		$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-55 to +150		$^\circ\text{C}$

### Note:

1. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

## Thermal Characteristics

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	4.8	W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead <sup>(2)</sup>	26	°C/W

### Note:

2. Mounted on 0.375 inch (9.5 mm) PCB.

## Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Value		Units
		1N5393	1N5397	
$V_F$	Forward Voltage at 1.5 A	1.4		V
$I_R$	Reverse Leakage at Rated $V_R$	$T_A=25^\circ\text{C}$	5.0	$\mu\text{A}$
		$T_A=100^\circ\text{C}$	300	$\mu\text{A}$
$C_T$	Total Capacitance $V_R = 4.0\text{ V}$ , $f = 1.0\text{ MHz}$	25		pF

## Typical Performance Characteristics

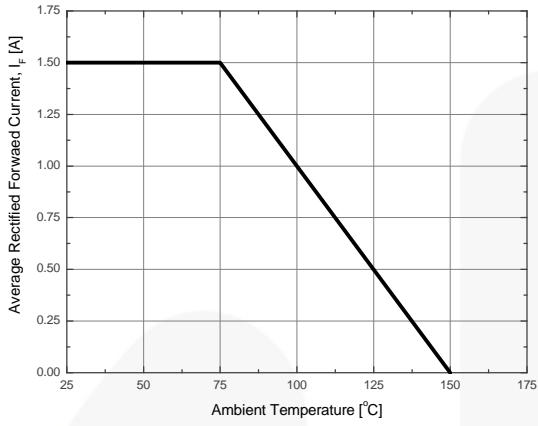


Figure 1. Forward Current Derating Curve

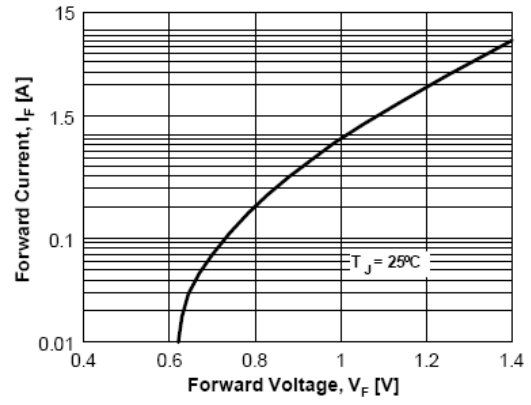


Figure 2. Forward Voltage Characteristics

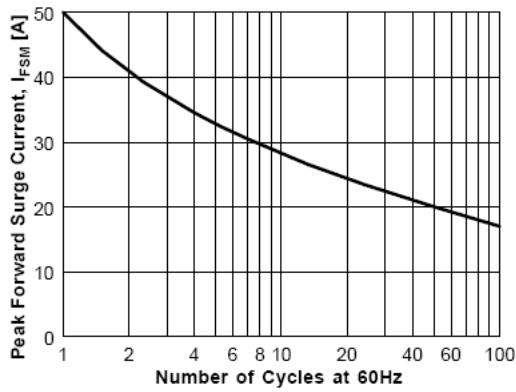


Figure 3. Non-Repetitive Surge Current

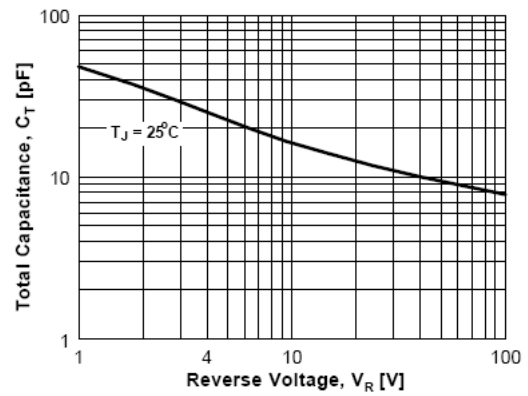
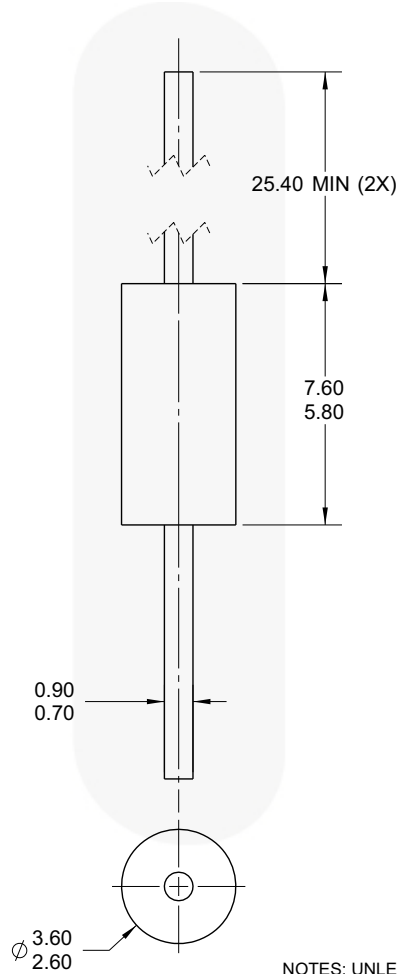


Figure 4. Total Capacitance

Physical Dimensions

DO-15



NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE STANDARD REFERENCE: JEDEC DO-204 VARIATION AC.
- B) PLASTIC PACKAGE BODY.
- D) ALL DIMENSIONS ARE IN MILLIMETERS.
- E) DRAWING FILE NAME: DO15AREV1

Figure 5. AXIAL LEADED, JEDEC DO204, VARIATION AC

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| BitSiC™   | Global Power Resource <sup>SM</sup>            | Programmable Active Droop™  | TinyBuck®   |
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