

## Miniature Clamper/Damper Glass Passivated Rectifier

Reverse Voltage 1650V  
Forward Current 1.5A

### Features

- Specially designed for clamping circuits, horizontal deflection systems and damper applications
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- 1.5 Ampere operation at  $T_A=50^\circ\text{C}$  with no thermal runaway
- Typical  $I_R$  less than  $0.1\mu\text{A}$
- Capable of meeting environmental standards of MIL-S-19500
- High temperature soldering guaranteed:  $350^\circ\text{C}/10$  seconds,  $0.375"$  (9.5mm) lead length, 5 lbs. (2.3kg) tension

### Mechanical Data

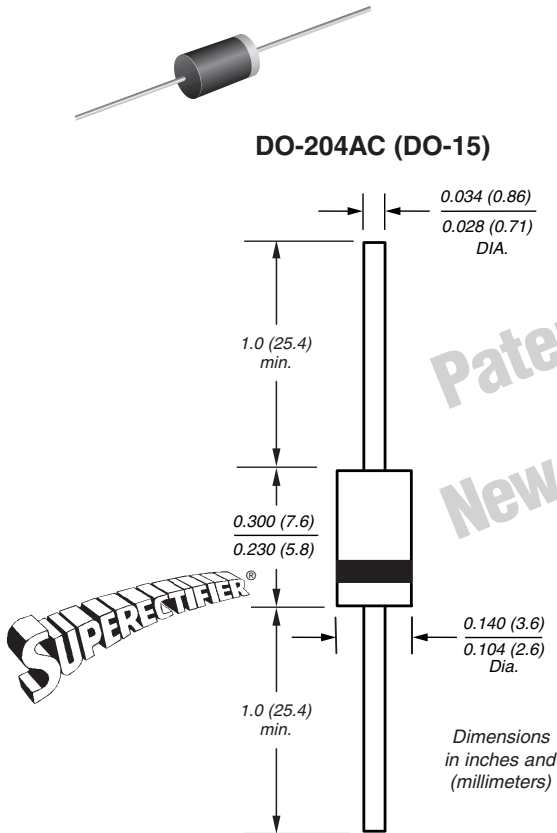
**Case:** JEDEC DO-204AC, molded plastic over glass body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.015 ounce, 0.4 gram



\* Glass-plastic encapsulation technique is covered by

Patent No. 3,996,602 and brazed-lead assembly by Patent No. 3,930,306.

### Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	VRRM	1650	V
Maximum RMS voltage	VRMS	1150	V
Maximum DC blocking voltage	VDC	1650	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 50^\circ\text{C}$	$I_{F(AV)}$	1.5	A
Peak forward surge current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	40	A
Maximum full load reverse current full cycle average 0.375" (9.5mm) lead length at $T_A = 100^\circ\text{C}$	$I_{R(AV)}$	50	$\mu\text{A}$
Typical thermal resistance (Note 1)	$R_{\theta JA}$	55	$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175	$^\circ\text{C}$

### Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

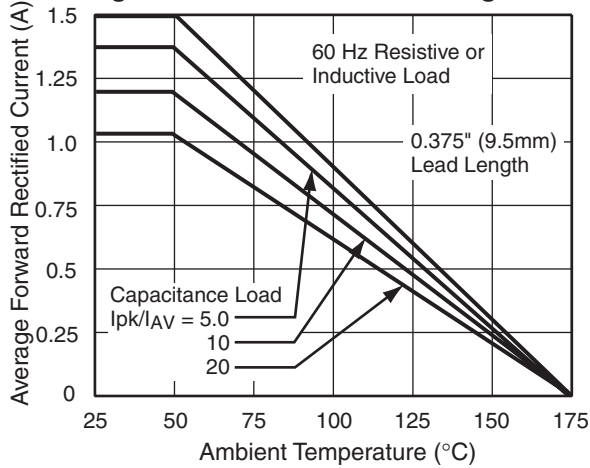
Parameter	Symbol	Value	Unit
Maximum instantaneous forward voltage at 3.0A	$V_F$	1.6	V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$	$I_R$	5.0 100	$\mu\text{A}$
Maximum reverse recovery time at $I_F = 0.5\text{A}$ , $I_R = 50\text{mA}$	$t_{rr}$	20	$\mu\text{s}$
Typical junction capacitance at 4.0V, 1MHz	$C_J$	15	pF

**Note:** (1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

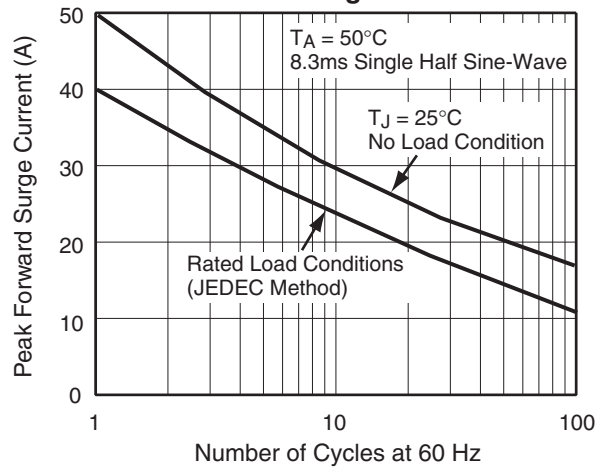
**Miniature Clamper/Damper Glass Passivated Rectifier**

**Ratings and Characteristic Curves** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

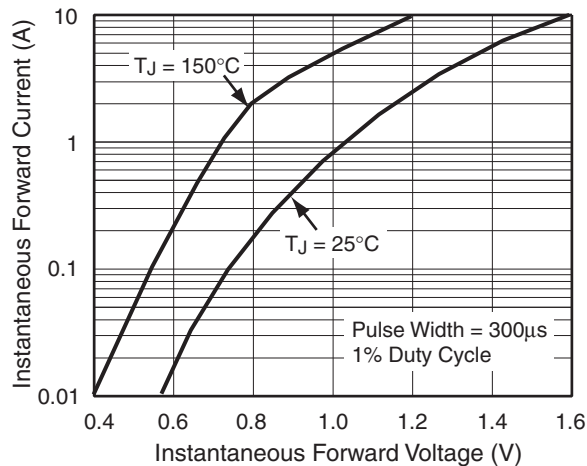
**Fig.1 - Forward Current Derating Curve**



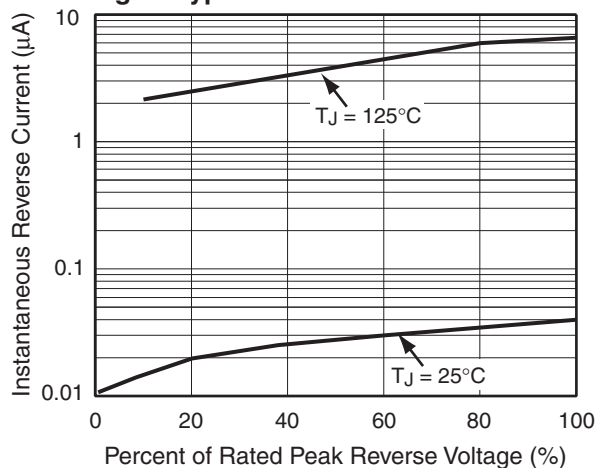
**Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.3 - Typical Instantaneous Forward Characteristics**



**Fig.4 - Typical Reverse Characteristics**



**Fig.5 - Typical Junction Capacitance**

