

R1200F thru R2000F

1. FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * Easily cleaned with Freon, Alcohol and similar solvents
- * High temperature metallurgically bonded construction
- * Diffused junction
- * Capable of meeting environmental standards of MIL-S-19500
- * High temperature soldering guaranteed: 260°C/10 seconds

2. Mechanical Data

Case: JEDEC DO-41, molded plastic body

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

Polarity: Color band denotes cathode end

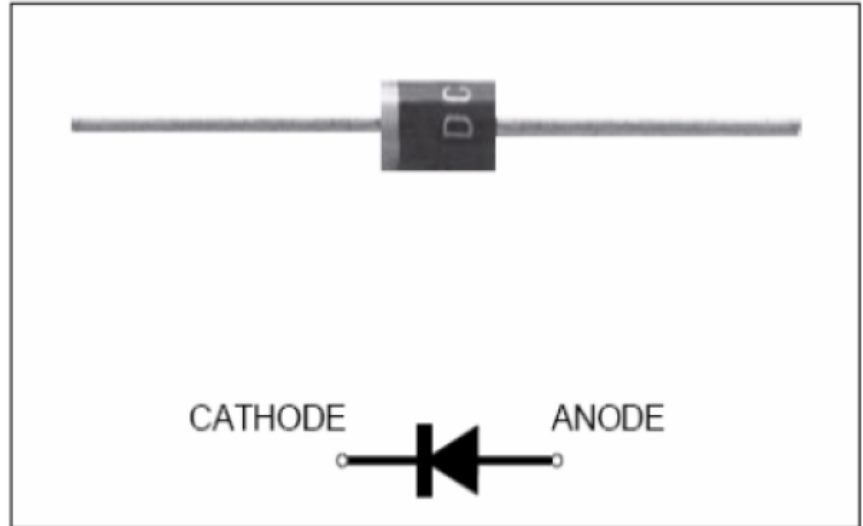
Mounting Position: Any

Weight: 0.012 oz., 0.34 g

Handling precaution: None

Fast Switching High Voltage Rectifiers

Reverse Voltage 1200 to 2000V
Forward Current 0.2A



We declare that the material of product compliance with RoHS requirements.

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

| Parameter Symbol | symbol | R 1200F | R 1500F | R 1800F | R 2000F | Unit |
|--|-----------------|-------------|---------|---------|---------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 1200 | 1500 | 1800 | 2000 | V |
| Maximum RMS voltage | V_{RMS} | 840 | 1050 | 1260 | 1400 | V |
| Maximum DC blocking voltage | V_{DC} | 1200 | 1500 | 1800 | 2000 | V |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 75^\circ\text{C}$ | $I_{F(AV)}$ | 0.2 | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 25 | | | | A |
| Typical thermal resistance (Note 2) | $R_{\theta JA}$ | 55 | | | | °C/W |
| Operating junction and storage temperature range | T_J, T_{STG} | -50 to +150 | | | | °C |

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

| Parameter Symbol | symbol | R 1200F | R 1500F | R 1800F | R 2000F | Unit |
|--|----------|------------|---------|---------|---------|---------------|
| Maximum instantaneous forward voltage at $I_{F(AV)}$ | V_F | 2.0 | | | | 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 | | | | μA |
| Typical reverse recovery time (Note 1) | t_{rr} | 500 | | | | ns |
| Typical junction capacitance at 4.0V, 1MHz | C_J | 15 | | | | PF |

NOTES:

1. $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

4. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

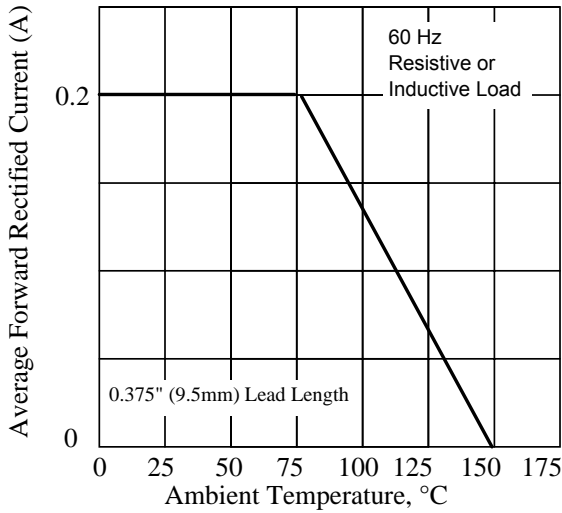


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

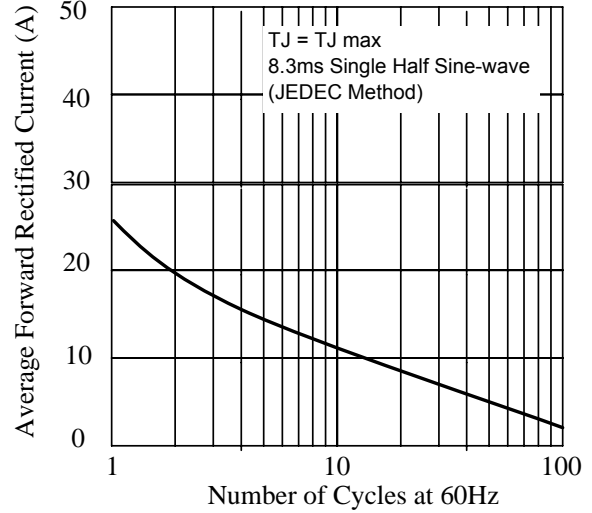


Fig 3. – Typical Instantaneous Forward Characteristics

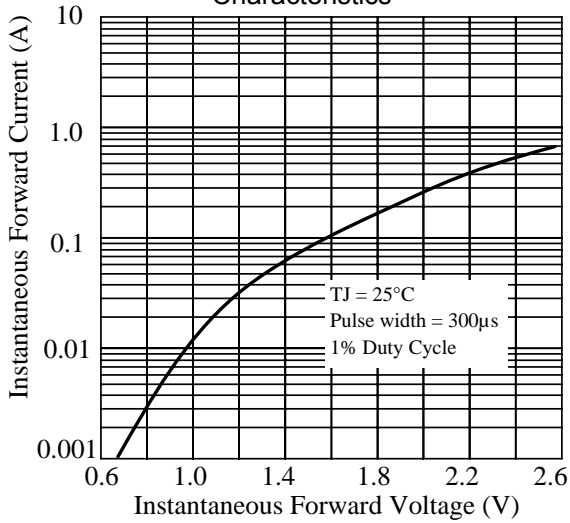


Fig 4. – Typical Reverse Characteristics

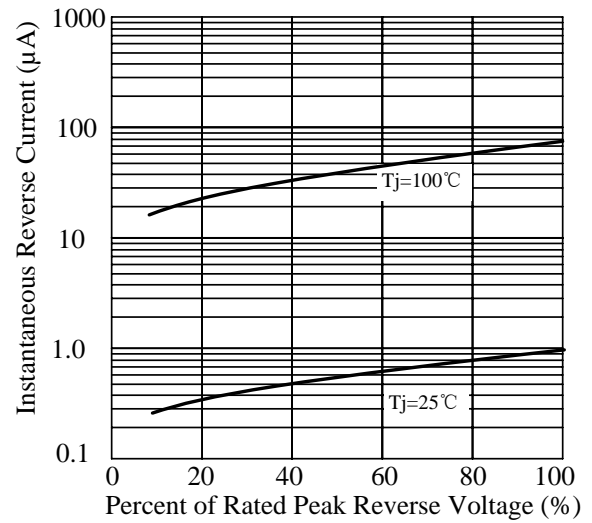


Fig 5. –typical transient thermal impedance

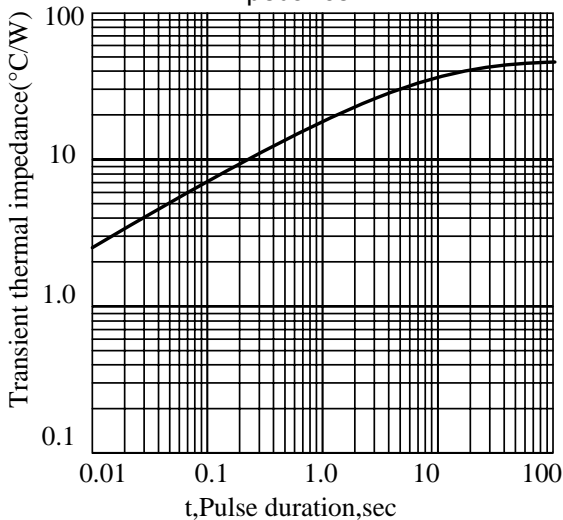
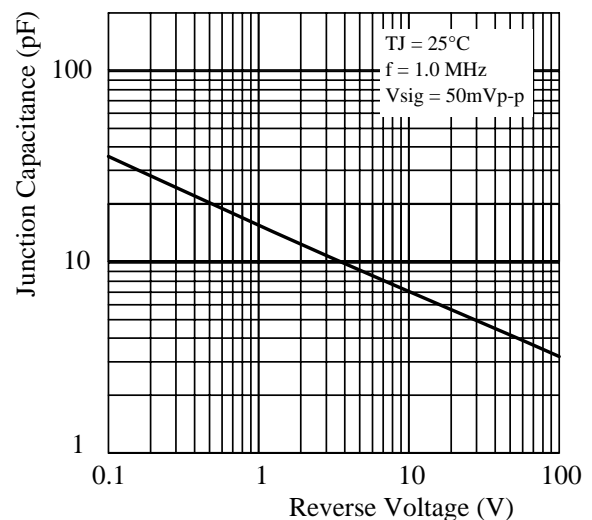


Fig 6. – Typical Junction Capacitance



5.Package Dimensions in inches and (millimeters)


Packing Of Plastic-Sealed Axial Lead Diodes

1. 卷盘/Reel Packing (52mm)

A: 卷盘规格/Reel spec.

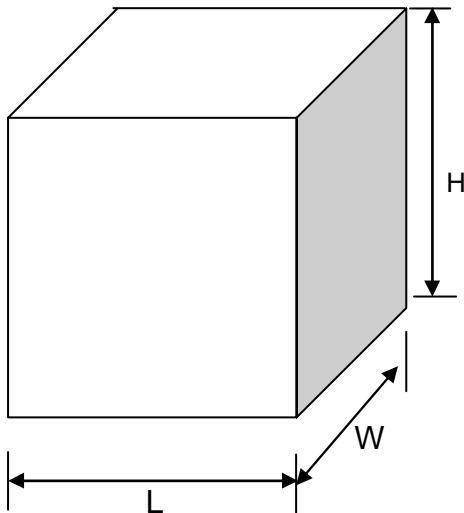


Unit:mm



| Item | Symbol | Dimension |
|-----------|--------|-----------|
| Dimeter | A | 76.4±0.1 |
| | B | 82.5±0.2 |
| | C | 330±0.5 |
| Width | W | 72±0.2 |
| Thickness | W1 | 3±0.2 |

B: 外箱规格/Outer Box Specification



| Item | Symbol | Dimension |
|------|--------|-----------|
| Size | L | 350±2 |
| | W | 350±2 |
| | H | 340±4 |

按以上包装方式: (As per the above spec)

| | 外型/Outside | | |
|-------------------|---------------|-------|----------|
| | DO-41 & A-405 | DO-15 | DO-201AD |
| Q'ty/Taping | 5K | 4K | 1.4K |
| Q'ty/Packing Case | 20K | 16K | 5.6K |

2. 弹带盒装/Ammo Packing

Unit:mm

A: 弹带盒规格/Ammo Box Spec.



| Item | Symbol | Dimension | Notes |
|------------|--------|-----------|-----------|
| Box's Size | L | 260±2 | 52mm TYPE |
| | W | 76±2 | |
| | H | 100±4 | |
| | L | 250±3 | 26mm TYPE |
| | W | 45±3 | |
| | H | 95±5 | |

B: 外箱规格/Outer Box Specification



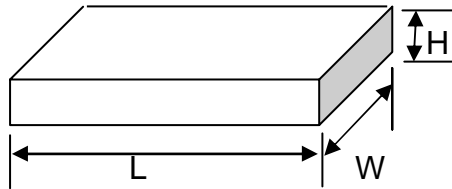
| Item | Symbol | Dimension | Notes |
|-------------|--------|-----------|-----------|
| Case's Size | L | 430±2 | 52mm TYPE |
| | W | 280±2 | |
| | H | 225±4 | |
| | L | 435±3 | 26mm TYPE |
| | W | 280±3 | |
| | H | 295±5 | |

按以上包装方式: (As per the above spec)

| | 外型/Outside | | |
|--------------------------------|---------------------|-------|----------|
| | A-405 & DO-41 & R-1 | DO-15 | DO-201AD |
| Q'ty/Taping | 3K | 2K | 0.8K |
| Q'ty/Packing Case 26mm/TYPE | 30K | 20K | 7.2K |
| Q'ty/Packing Case 52mm/TYPE | 60K | 40K | 14.4K |

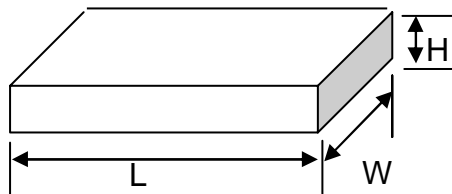
3. 散装/Bulk Packing

A. 包装盒尺寸/Box Dimension



(DO-41&DO-15)

| Item | Symbol | Dimension |
|------------|--------|-----------|
| Box's Size | L | 200±2 |
| | W | 84±2 |
| | H | 21±2 |



(DO-201AD)

| Item | Symbol | Dimension |
|------------|--------|-----------|
| Box's Size | L | 200±2 |
| | W | 84±2 |
| | H | 29±2 |

B: 外箱规格/Outer Box Specification



| Item | Symbol | Dimension |
|-------------|--------|-----------|
| Case's Size | L | 465±2 |
| | W | 225±2 |
| | H | 260±4 |

按以上包装方式: (As per the above spec)

| | 外型/Outside | | |
|-------------------|-----------------|-------|----------|
| | DO-41&A-405&R-1 | DO-15 | DO-201AD |
| Q'ty/Taping | 1K | 0.5K | 0.3K |
| Q'ty/Packing Case | 50K | 25K | 12K |

4. 编带图形及规格/Taping Specification



Unit:mm

| 尺寸代号 | 编带尺寸/Tape Dimension | | |
|----------------|---------------------|--------------|--------------|
| Dimension Code | 26/tape | 52/tape | 52/tape# |
| W | 26 0.0/+1.6 | 52 -1.0/+2.0 | 52 -1.0/+2.0 |
| P | 5±0.5 | 5±0.5 | 10±0.5 |
| L1-L2 | <1.0 | <1.2 | <1.2 |
| H | 6±1.0 | 6±1.0 | 6±1.0 |
| Z | <1.2 | <1.2 | <1.2 |
| R | <1.0 | <1.0 | <1.0 |
| T | >3.2 | >3.2 | >3.2 |

注: 52编带# 为DO-201AD编带规格

Remark: 52 tape# is DO-201AD taping spec.