

DO-204AL (DO-41)



Voltage 200V to 1000V Current 1.0 A at 55 °C

HYPERECTIFIER

FEATURES

- Ultrafast recovery time for high efficiency
- Low power losses
- Low forward voltage drop
- High forward surge current capability
- Solder dip 260°C, 10s
- AEC-Q101 qualified



 Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C



RoHS

MECHANICAL DATA

- Case: DO-204AL (DO-41). Epoxy meets UL 94V-0 flammability rating.
- Polarity: Color band denotes cathode end.
- **Terminals:** Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test.

TYPICAL APPLICATIONS

Used in high frequency rectifier of switching mode power supplies, inverters, freewheeling diodes, dc-to-dc converters, and other power switching application.

Maximun Ratings and Electrical Characteristics at 25°C

| | Marking Code | BYV26A | BYV26B | BYV26C | BYV26D | BYV26E |
|--------------------|--|-----------------|--------|--------|--------|--------|
| V _{RRM} | Peak Recurrent Reverse Voltage (V) | 200 | 400 | 600 | 800 | 1000 |
| V _{RMS} | Maximum RMS Voltage (V) | | 280 | 420 | 560 | 700 |
| V _{DC} | Maximum DC Blocking Voltage (V) | 200 | 400 | 600 | 800 | 1000 |
| I _{F(AV)} | Forward current at Tamb = 55 °C | 1 A | | | | |
| I _{FRM} | Recurrent peak forward surge current | | | 10 A | | |
| I _{FSM} | 8.3 ms. peak forward surge current (Jedec Method) | 30 A | | | | |
| t _{rr} | Max. reverse recovery time from $I_F = 0.5 \text{ A}$; $I_R = 1 \text{ A}$; $I_{RR} = 0.25 \text{ A}$ | 30 ns 75 ns | | ī ns | | |
| V_{BR} | Avalanche breakdown voltage at 100µA (V) | >300 | >500 | >700 | >900 | >1100 |
| T _j | Operating temperature range | -65 to + 175 °C | | | | |
| T _{stg} | Storage temperature range | -65 to + 175 °C | | | | |
| E _{RSM} | Maximum non repetitive peak reverse avalanche energy $I_R = 0.5 \text{ A}$; $T_j = 25 ^{\circ}\text{C}$ | 20 mJ | | | | |

Electrical Characteristics at Tamb = 25 °C

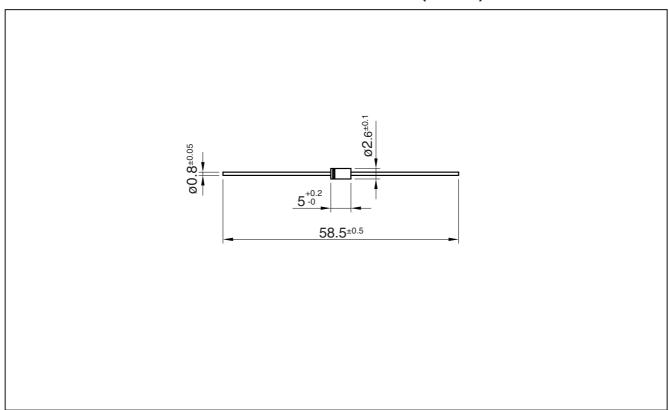
| V _F | Max. forward voltage drop at I _F = 1 A | at 25 °C at 175 °C | 2.5 V 1.3 V |
|-----------------------|---|-----------------------|----------------|
| I _R | max reverse carrent at Time | at 25 °C at 165 °C | 5 μΑ 150 μΑ |
| R _{th (j-a)} | Max. thermal resistance (I = 10mm) | | 50 °C/W |



Ordering information

| PREFERRED P/N | PACKAGE CODE | DELIVERY MODE | BASE QUANTITY | UNIT WEIGHT (g) |
|---------------|--------------|----------------------------|---------------|-----------------|
| BYV26D AMP | AMP | AMMO BOX | 5,000 | 0.325 |
| BYV26D TR | TR | 14" diameter tape and reel | 5,000 | 0.325 |

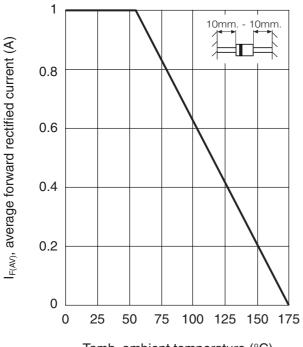
Package Outline Dimensions: (mm) DO-204AL (DO-41)





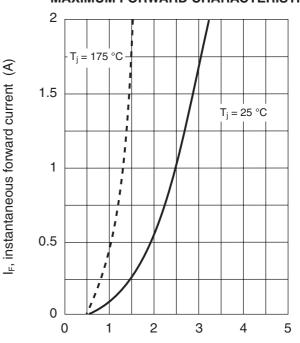
Ratings and Characteristics (Ta 25 °C unless otherwise noted)

FORWARD CURRENT DERATING CURVE



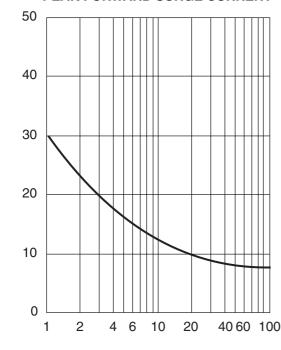
Tamb, ambient temperature (°C)

MAXIMUM FORWARD CHARACTERISTIC



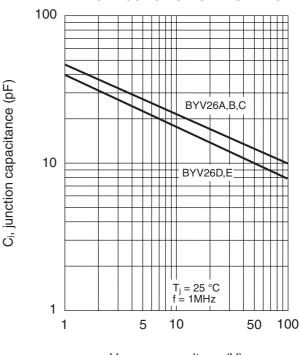
V_F, instantaneous forward voltage (V)

MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



Number of cycles at 50 Hz.

TYPICAL JUNCTION CAPACITANCE



 V_{R} , reverse voltage (V)

IFSM, peak forward surge current (A)



Revision History

| Date | Revision | Description of Changes |
|-------------|----------|------------------------|
| 15-May-2011 | 0 | Original Data Sheet |
| 27-Jun-2016 | 1 | Format update |

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