

TOSHIBA High Efficiency Rectifier (HED) Silicon Epitaxial Junction Type

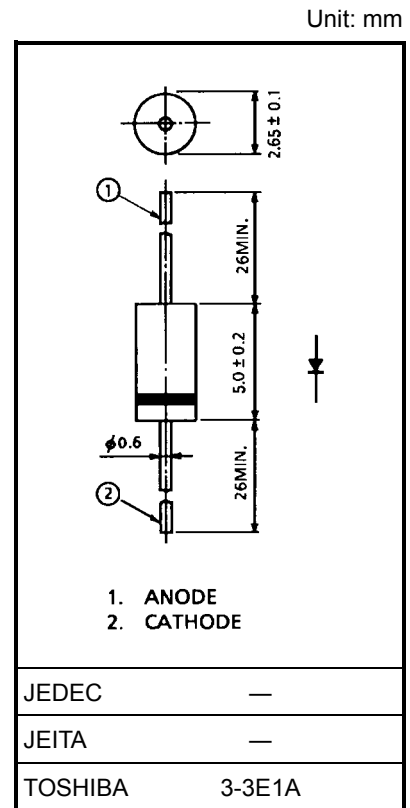
1DL41A

Switching Mode Power Supply Applications

- Repetitive Peak Reverse Voltage: $V_{RRM} = 200\text{ V}$
- Average Forward Current: $I_F (AV) = 1.0\text{ A}$ ($T_a = 64^\circ\text{C}$)
- Very Fast Reverse-Recovery Time: $t_{rr} = 35\text{ ns}$ (max)
- Low Forward Voltage: $V_{FM} = 0.98\text{ V}$ (max)
- Available to Reduce Switching Losses and Output Noise.

Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Characteristics | Symbol | Rating | Unit |
|---|------------|------------|------------------|
| Repetitive peak reverse voltage | V_{RRM} | 200 | V |
| Average forward current ($T_a = 64^\circ\text{C}$) | $I_F (AV)$ | 1.0 | A |
| Peak one cycle surge forward current (non-repetitive) | I_{FSM} | 30 (50 Hz) | A |
| | | 33 (60 Hz) | |
| Junction temperature | T_j | -40 to 150 | $^\circ\text{C}$ |
| Storage temperature range | T_{stg} | -40 to 150 | $^\circ\text{C}$ |

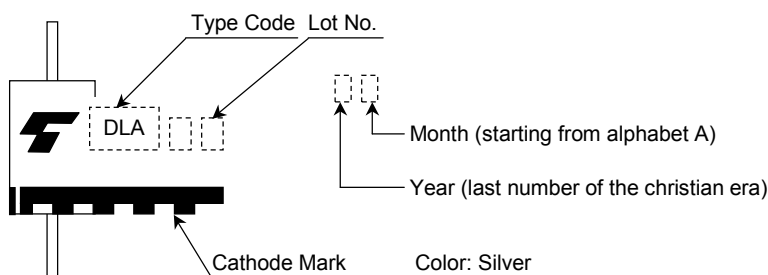


Electrical Characteristics ($T_a = 25^\circ\text{C}$)

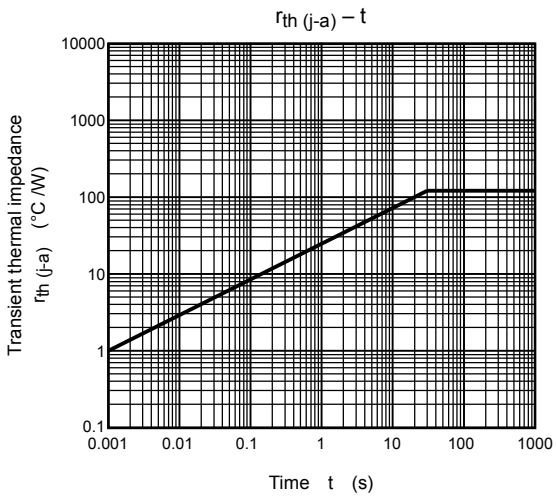
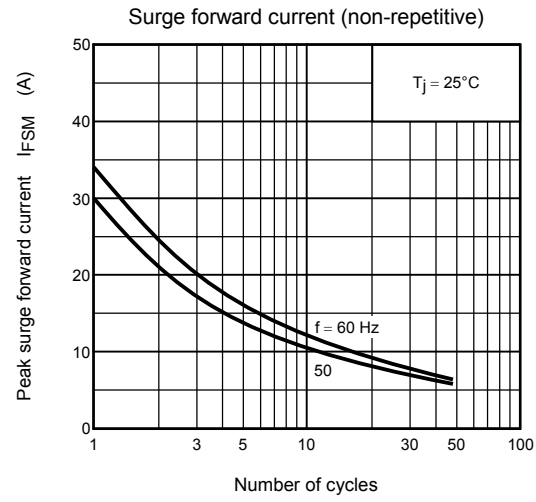
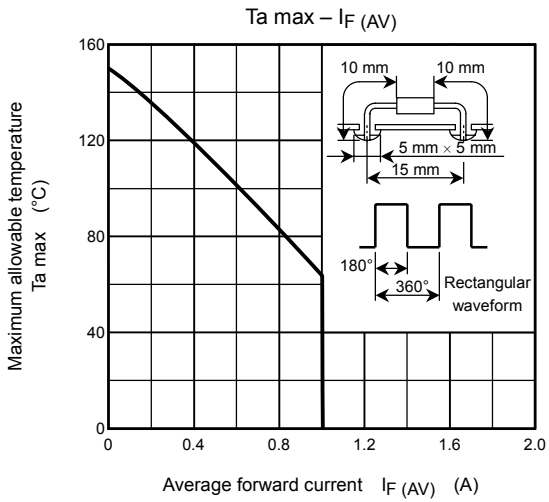
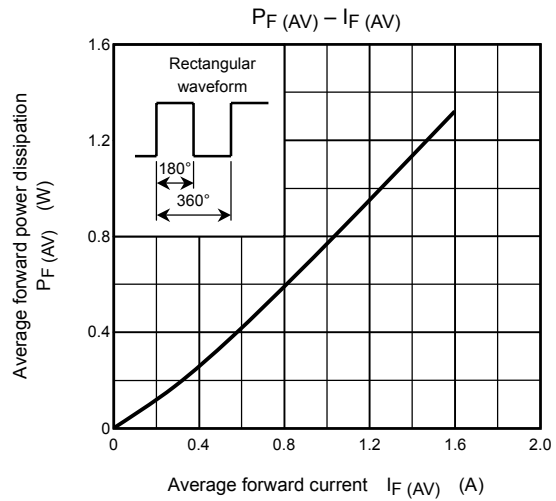
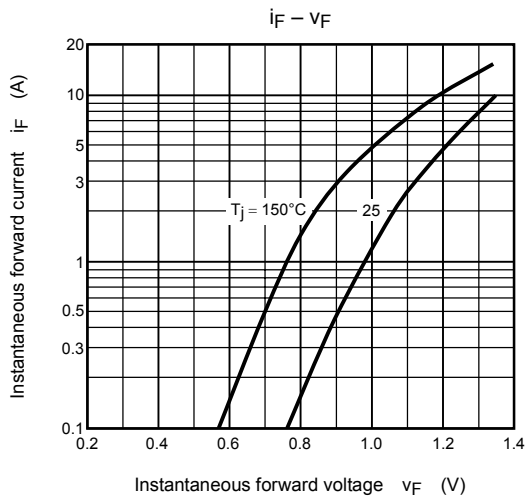
Weight: 0.225 g (typ.)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|---------------------------------|---------------------|---|-----|------|------|---------------------------|
| Peak forward voltage | V_{FM} | $I_{FM} = 1.0\text{ A}$ | — | — | 0.98 | V |
| Repetitive peak reverse current | I_{RRM} | $V_{RRM} = 200\text{ V}$ | — | — | 100 | μA |
| Reverse recovery time | t_{rr} | $I_F = 1\text{ A}$, $di/dt = -30\text{ A}/\mu\text{s}$ | — | — | 35 | ns |
| Forward recovery time | t_{fr} | $I_F = 1.0\text{ A}$ | — | — | 100 | ns |
| Thermal resistance | $R_{th(j-a)}$ | Junction to Ambient | — | — | 115 | $^\circ\text{C}/\text{W}$ |
| Thermal resistance | $R_{th(j-\lambda)}$ | Junction to Lead | — | — | 45 | $^\circ\text{C}/\text{W}$ |

Marking



| Code | Type |
|------|--------|
| DLA | 1DL41A |



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000707EAA

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