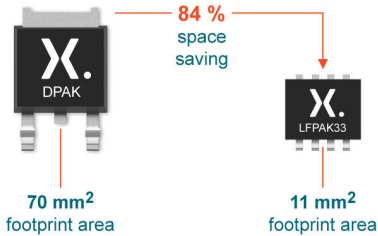


> LFPAK33

shrinking the power footprint

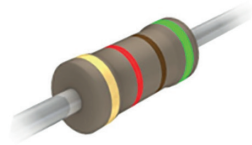
The LFPAK33 brings Nexperia's **robust and reliable copper clip technology** to the Power33 (3.3 mm x 3.3 mm) footprint, qualified to AEC-Q101 standards.

Compact footprint



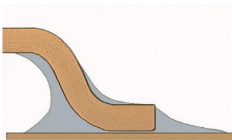
- > Ultra-compact footprint - 11 mm²
- > Ultra-low height <1 mm
- > Footprint >84 % smaller than DPAK

Ultra low On-resistance

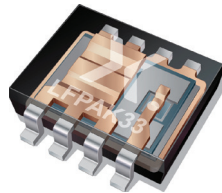


- > 3.3 mΩ @ 40 V
- > Copper clip technology
- > Ultra-low package resistance

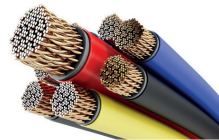
Reliable & manufacturable



- > High board level reliability
- > Easy optical inspection
- > Robust solder joints



High current rating



- > Best-in-class current rating
- > Up to 80 A per device
- > High transient robustness

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LFPAK33 product range (AEC-Q101 qualified)

| Type number | V _{GS} [max] (V) | Gate Level | R _{DS(on)} [max] @ V _{GS} = 10 V (mΩ) | R _{DS(on)} [max] @ V _{GS} = 5 V (mΩ) | I _p [max] @ 25°C (A) | R _{th(j-mb)} [max] (K/W) |
|--------------|---------------------------|------------|---|--|---------------------------------|-----------------------------------|
| BUK9M5R2-30E | 30 | LL | | 5.2 | 70 | 1.89 |
| BUK9M6R6-30E | 30 | LL | | 6.6 | 70 | 2 |
| BUK9M10-30E | 30 | LL | | 10 | 59 | 2.75 |
| BUK9M17-30E | 30 | LL | | 17 | 39 | 3.4 |
| BUK7M6R3-40E | 40 | SL | 6.3 | | 70 | 1.89 |
| BUK9M7R2-40E | 40 | LL | | 7.2 | 70 | 1.89 |
| BUK7M8R0-40E | 40 | SL | 8 | | 70 | 2 |
| BUK9M9R1-40E | 40 | LL | | 9.1 | 66 | 2 |
| BUK7M10-40E | 40 | SL | 10 | | 60 | 2.43 |
| BUK9M11-40E | 40 | LL | | 11 | 56 | 2.43 |
| BUK7M12-40E | 40 | SL | 12 | | 52 | 2.75 |
| BUK9M14-40E | 40 | LL | | 14 | 48 | 2.75 |
| BUK7M21-40E | 40 | SL | 21 | | 35 | 3.4 |
| BUK9M24-40E | 40 | LL | | 24 | 31 | 3.4 |
| BUK7M45-40E | 40 | SL | 45 | | 21 | 4.8 |
| BUK9M52-40E | 40 | LL | | 52 | 19 | 4.8 |
| BUK7M9R9-60E | 60 | SL | 9.9 | | 60 | 1.89 |
| BUK9M12-60E | 60 | LL | | 12 | 54 | 1.89 |
| BUK7M12-60E | 60 | SL | 12 | | 54 | 2 |
| BUK9M15-60E | 60 | LL | | 15 | 49 | 2 |
| BUK7M15-60E | 60 | SL | 15 | | 46 | 2.43 |
| BUK9M19-60E | 60 | LL | | 19 | 40 | 2.43 |
| BUK7M19-60E | 60 | SL | 19 | | 39 | 2.75 |
| BUK9M24-60E | 60 | LL | | 24 | 34 | 2.75 |
| BUK7M33-60E | 60 | SL | 33 | | 26 | 3.4 |
| BUK9M42-60E | 60 | LL | | 42 | 23 | 3.4 |
| BUK7M42-60E | 60 | SL | 42 | | 21 | 4.17 |
| BUK9M53-60E | 60 | LL | | 53 | 19 | 4.17 |
| BUK7M67-60E | 60 | SL | 67 | | 16 | 4.8 |
| BUK9M85-60E | 60 | LL | | 85 | 14 | 4.8 |
| BUK7M17-80E | 80 | SL | 17 | | 43 | 1.89 |
| BUK7M22-80E | 80 | SL | 22 | | 38 | 2 |
| BUK9M23-80E | 80 | LL | | 23 | 37 | 1.89 |

| Type number | V _{GS} [max] (V) | Gate Level | R _{DS(on)} [max] @ V _{GS} = 10 V (mΩ) | R _{DS(on)} [max] @ V _{GS} = 5 V (mΩ) | I _p [max] @ 25°C (A) | R _{th(j-mb)} [max] (K/W) |
|---------------|---------------------------|------------|---|--|---------------------------------|-----------------------------------|
| BUK7M27-80E | 80 | SL | 27 | | 32 | 2.43 |
| BUK9M28-80E | 80 | LL | | 28 | 34 | 2 |
| BUK9M35-80E | 80 | LL | | 35 | 28 | 2.43 |
| BUK9M34-100E | 100 | LL | | 34 | 28 | 1.89 |
| BUK9M43-100E | 100 | LL | | 43 | 26 | 2 |
| BUK9M120-100E | 100 | LL | | 120 | 12 | 3.4 |
| BUK9M156-100E | 100 | LL | | 156 | 10 | 4.17 |

The latest Trench 9 silicon technology:

| Type number | V _{GS} [max] (V) | Gate Level | R _{DS(on)} [max] @ 10 V (mΩ) | R _{DS(on)} [max] @ 4.5 V (mΩ) | I _p [Max] (A) | R _{th(j-mb)} [K/w] | Q _{DS(on)} [Typ] @ V _{GS} = 10 V |
|--------------|---------------------------|------------|---------------------------------------|--|--------------------------|-----------------------------|--|
| BUK7M3R3-40H | 40 | SL | 3.3 | | 80 | 1.48 | 32 |
| BUK9M3R3-40H | 40 | LL | | 4.2 | 80 | 1.48 | 39 |
| BUK7M4R3-40H | 40 | SL | 4.3 | | 95 | 1.67 | 24 |
| BUK9M4R3-40H | 40 | LL | | 5.5 | 95 | 1.81 | 31 |
| BUK7M5R0-40H | 40 | SL | 5 | | 85 | 1.67 | 22 |
| BUK9M5R0-40H | 40 | LL | | 6.4 | 85 | 1.81 | 28 |
| BUK7M6R0-40H | 40 | SL | 6 | | 50 | 2.14 | 20 |
| BUK9M6R0-40H | 40 | LL | | 7.7 | 50 | 2.14 | 26 |
| BUK7M6R7-40H | 40 | SL | 6.7 | | 50 | 2.32 | 17 |
| BUK9M6R7-40H | 40 | LL | | 8.6 | 50 | 2.32 | 22 |
| BUK7M8R5-40H | 40 | SL | 8.5 | | 40 | 2.56 | 14 |
| BUK9M8R5-40H | 40 | LL | | 11 | 40 | 2.56 | 20 |
| BUK7M9R5-40H | 40 | SL | 9.5 | | 40 | 2.74 | 13 |
| BUK9M9R5-40H | 40 | LL | | 12 | 40 | 2.74 | 17 |
| BUK7M11-40H | 40 | SL | 11 | | 35 | 3.01 | 11 |
| BUK9M11-40H | 40 | LL | | 14 | 35 | 3.01 | 15 |
| BUK7M15-40H | 40 | SL | 15 | | 30 | 3.44 | 9 |
| BUK9M15-40H | 40 | LL | | 19 | 30 | 3.44 | 12 |
| BUK7M20-40H | 40 | SL | 20 | | 25 | 3.96 | 7 |
| BUK9M20-40H | 40 | LL | | 25 | 25 | 3.96 | 9 |

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