

PIN DIODES

ULTRAFAST SWITCHING SILICON PIN DIODES

For ultrafast switching, these passivated mesa diodes have a thin I layer (< 10 μm)

| CHIP DIODES | | CHIP AND PACKAGED DIODES | | | | | | | PACKAGED DIODES | | | | | |
|-------------------------|-------------|--------------------------|--------------------------------------|--|------|---------------------------------------|---|---|-----------------|----------|--------------------------------|--------------------------------|---------------------------------------|------|
| Characteristics at 25°C | | Gold dia Ø | Breakdown voltage V _{BR} | Junction capacitance C _J | | Series resistance R _{SP} | Minority carrier lifetime τ _i | Reverse switching time T _{CR} | | | | | Thermal resistance R _{th} | |
| TEST CONDITIONS | | IR = 10 mA | I _R = 10 μA | V _R = 6 V f = 1 MHz | | I _T = 10 mA f = 120 MHz | I _T = 10 mA I _R = 6 mA | I _T = 20 mA V _R = 10 V 50 Ω | | | | | P _{diss} 1 W F27d | |
| Old type n° | Type | μm | V | pF | | Ω | ns | ns | Old type n° | Type | Standard cases ⁽¹⁾ | | | °C/W |
| | Case C2A(1) | typ | min | min | max | max | typ | typ | | | C _b =0.18 pF (2) | C _b =0.12 pF (2) | C _b =0.1 pF (2) | max |
| | EH 50033 | 25 | 30 | 0.08 | 0.12 | 2.1 | 20 | 2.5 | | DH 50033 | F 27 d | M 208 | A 22 e | 80 |
| | EH 50034 | 30 | 30 | 0.12 | 0.17 | 1.6 | 25 | 2.5 | | DH 50034 | F 27 d | M 208 | A 22 e | 80 |
| | EH 50035 | 35 | 30 | 0.17 | 0.23 | 1.1 | 25 | 2.5 | | DH 50035 | F 27 d | M 208 | A 22 e | 70 |
| | EH 50036 | 55 | 30 | 0.23 | 0.40 | 1.0 | 30 | 3.0 | | DH 50036 | F 27 d | M 208 | A 22 e | 60 |
| | EH 50037 | 65 | 30 | 0.40 | 0.60 | 0.7 | 40 | 4.0 | | DH 50037 | F 27 d | M 208 | A 22 e | 50 |
| | EH 50052 | 30 | 50 | 0.06 | 0.08 | 1.6 | 30 | 3.0 | | DH 50052 | F 27 d | M 208 | A 22 e | 80 |
| | EH 50053 | 35 | 50 | 0.08 | 0.12 | 1.4 | 30 | 3.0 | | DH 50053 | F 27 d | M 208 | A 22 e | 70 |
| | EH 50054 | 40 | 50 | 0.12 | 0.17 | 1.1 | 35 | 4/0 | | DH 50054 | F 27 d | M 208 | A 22 e | 60 |
| | EH 50055 | 50 | 50 | 0.17 | 0.23 | 1.0 | 40 | 4.0 | | DH 50055 | F 27 d | M 208 | A 22 e | 50 |
| EH 531 | EH 50056 | 65 | 50 | 0.23 | 0.40 | 0.9 | 50 | 5.0 | DH 531 | DH 50056 | F 27 d | M 208 | A 22 e | 45 |
| | EH 50057 | 80 | 50 | 0.40 | 0.60 | 0.8 | 60 | 6.0 | | DH 50057 | F 27 d | M 208 | A 22 e | 45 |
| | EH 50071 | 35 | 70 | 0.04 | 0.06 | 2.0 | 40 | 4.0 | | DH 50071 | F 27 d | M 208 | A 22 e | 70 |
| | EH 50072 | 40 | 70 | 0.06 | 0.08 | 1.8 | 40 | 4.0 | | DH 50072 | F 27 d | M 208 | A 22 e | 70 |
| | EH 50073 | 45 | 70 | 0.08 | 0.12 | 1.6 | 50 | 5.0 | | DH 50073 | F 27 d | M 208 | A 22 e | 60 |
| | EH 50074 | 50 | 70 | 0.12 | 0.17 | 1.4 | 60 | 6.0 | | DH 50074 | F 27 d | M 208 | A 22 e | 50 |
| | EH 50075 | 60 | 70 | 0.17 | 0.23 | 1.1 | 70 | 7.0 | | DH 50075 | F 27 d | M 208 | A 22 e | 45 |
| EH 532 | EH 50076 | 80 | 70 | 0.23 | 0.40 | 1.0 | 80 | 8.0 | DH 532 | DH 50076 | F 27 d | M 208 | A 22 e | 40 |
| | EH 50077 | 100 | 70 | 0.40 | 0.60 | 0.9 | 90 | 9.0 | | DH 50077 | F 27 d | M 208 | A 22 e | 40 |
| | EH 50101 | 45 | 100 | 0.04 | 0.06 | 2.1 | 60 | 6.0 | | DH 50101 | F 27 d | M 208 | A 22 e | 60 |
| | EH 50102 | 50 | 100 | 0.06 | 0.08 | 1.9 | 70 | 7.0 | | DH 50102 | F 27 d | M 208 | A 22 e | 60 |
| | EH 50103 | 60 | 100 | 0.08 | 0.12 | 1.7 | 80 | 8.0 | | DH 50103 | F 27 d | M 208 | A 22 e | 55 |
| | EH 50104 | 70 | 100 | 0.12 | 0.17 | 1.5 | 100 | 10.0 | | DH 50104 | F 27 d | M 208 | A 22 e | 50 |
| | EH 50105 | 90 | 100 | 0.17 | 0.23 | 1.3 | 120 | 12.0 | DH 401 | DH 50105 | F 27 d | M 208 | A 22 e | 40 |
| | EH 50106 | 110 | 100 | 0.23 | 0.40 | 1.2 | 190 | 20.0 | | DH 50106 | F 27 d | M 208 | A 22 e | 35 |
| | EH 50107 | 130 | 100 | 0.40 | 0.60 | 1.1 | 280 | 30.0 | | DH 50107 | F 27 d | M 208 | A 22 e | 35 |

⁽¹⁾Custom cases on request

⁽²⁾C_T = C_J + C_b

Temperature Range :

Operating Junction (T_J) : -55°C to +175°C

Storage : -65°C to +200°C