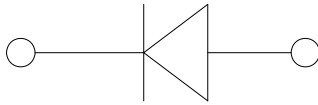
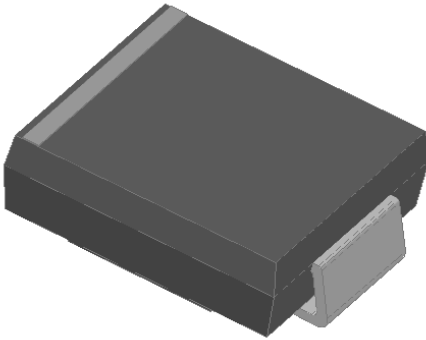


Surface Mount Ultrafast Rectifier Diode



Features

- Ultrafast reverse recovery time
- Low leakage current
- Low switching losses, high efficiency
- High forward surge capability
- Solder dip 260 °C max. 10 s, per JESD 22-B106

Typical Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer and telecommunication.

Mechanical Data

- **Package:** DO-214AB (SMC)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | MURS340 |
|---|------------------|------------------|-----------|
| Device marking code | | | MURS340 |
| Repetitive Peak Reverse Voltage | V _{RRM} | V | 400 |
| Average Rectified Output Current @60Hz sine wave, Resistance load, TL (FIG.1) | I _O | A | 3.0 |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _a =25°C | I _{FSM} | A | 100 |
| Current Squared Time @1ms≤t≤8.3ms T _a =25°C | I ² t | A ² s | 41.5 |
| Typical junction capacitance@ Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C. | C _j | pF | 55 |
| Storage Temperature | T _{stg} | °C | -55 ~+150 |
| Junction Temperature | T _j | °C | -55 ~+150 |

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | MURS340 |
|---|-----------------|------|---|---------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =3.0A | 1.25 |
| Maximum reverse recovery time | T _{RR} | ns | I _F =0.5A, I _R =1.0A, I _{rr} =0.25A | 50 |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _R | μA | T _a =25°C | 5 |
| | | | T _a =125°C | 50 |



MURS340

■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | MURS340 |
|--------------------|---------------------|------------------|------|------------------|
| Thermal Resistance | Junction to ambient | $R_{\theta J-A}$ | °C/W | 65 ¹⁾ |
| | Junction to lead | $R_{\theta J-L}$ | | 20 ¹⁾ |
| | Junction to case | $R_{\theta J-C}$ | | 15 ¹⁾ |

Note(1)

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| MURS340 | F1 | Approximate 0.248 | 3000 | 6000 | 42000 | 13" reel |

■ Characteristics(Typical)

FIG.1: Io-TL Curve

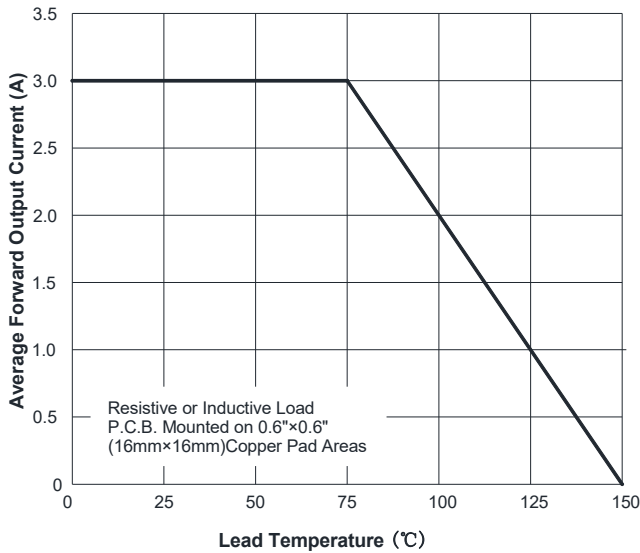


FIG.2: Forward Surge Current Capability

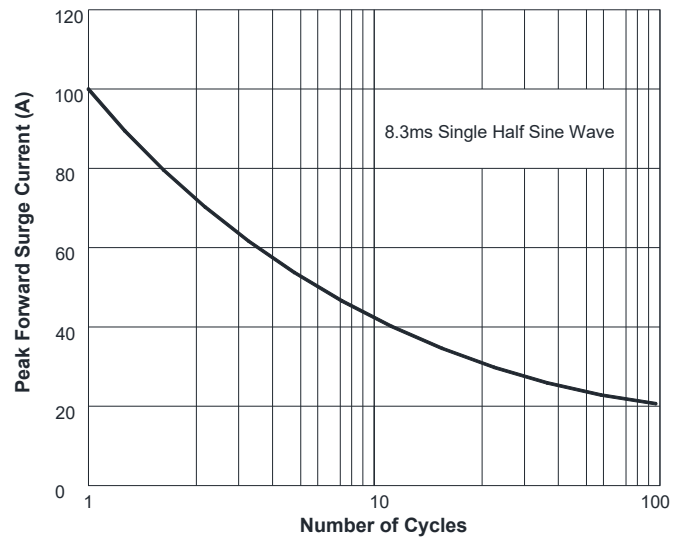


FIG3: Typical Forward Voltage

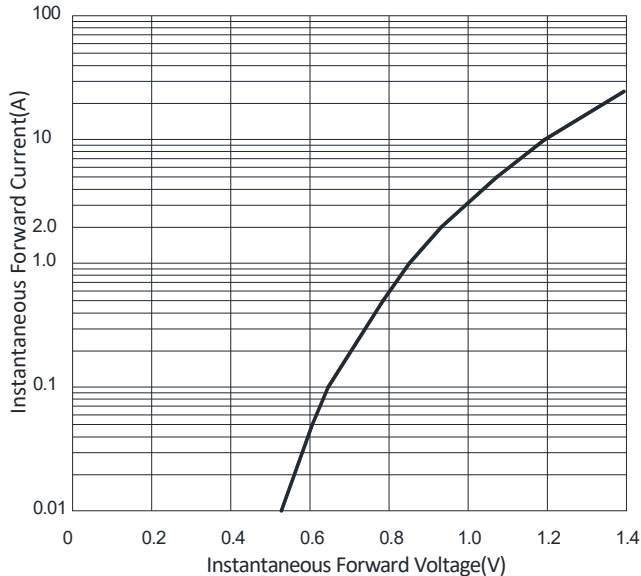


FIG.4: Typical Reverse Characteristics

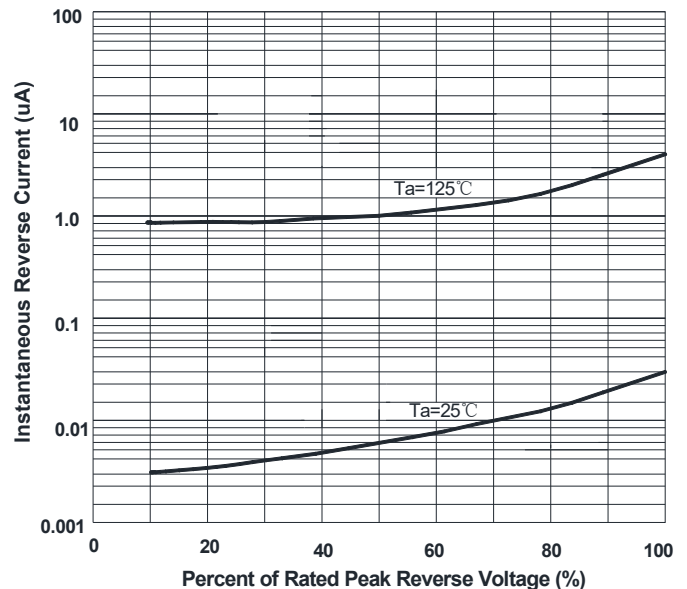
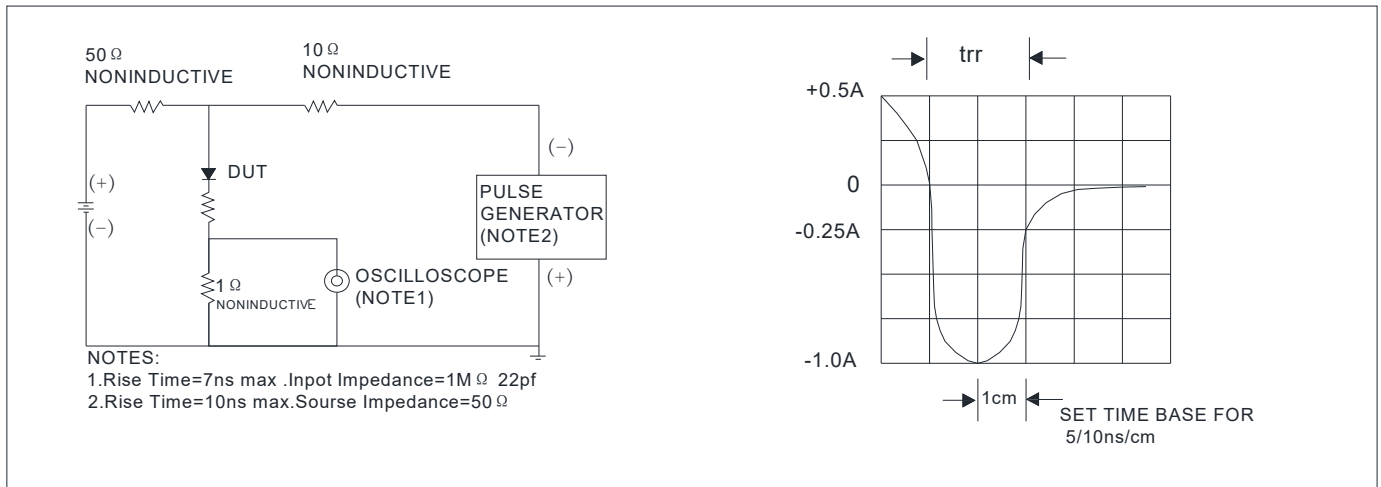
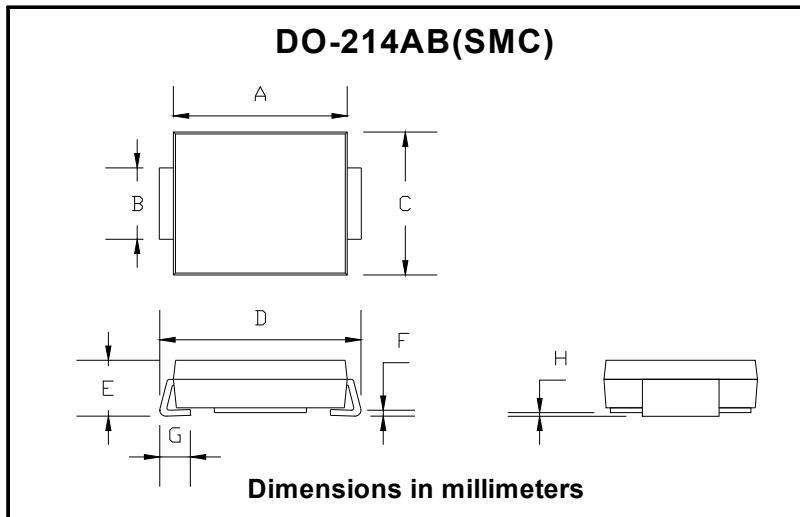


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

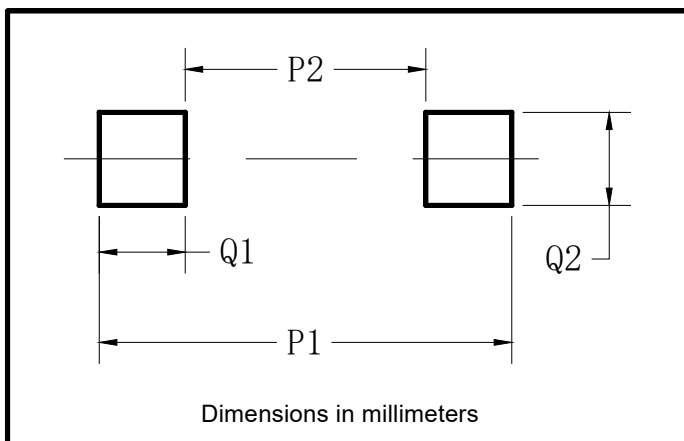


■ Outline Dimensions



| DO-214AB (SMC) | | |
|----------------|------|------|
| Dim | Min | Max |
| A | 6.60 | 7.11 |
| B | 2.85 | 3.27 |
| C | 5.59 | 6.22 |
| D | 7.75 | 8.13 |
| E | 1.99 | 2.61 |
| F | 0.15 | 0.31 |
| G | 0.76 | 1.52 |
| H | 0.10 | 0.20 |

■ Suggested pad layout



| Dim | Typ |
|-----|------|
| P1 | 9.9 |
| P2 | 3.84 |
| Q1 | 3.03 |
| Q2 | 3.82 |



MURS340

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