

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Super fast reverse recovery time
- High forward surge capability
- Meets MSL level 1, per J-STD-020,LF maximum peak of 260 °C

Typical Application

For use in high frequency rectification of power supply, inverters, converters, and freewheeling diodes for consumer 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: Cathode line denotes the cathode end



Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | Symbol | Unit | Conditions | MUR440S | MUR460S |
|-------------------------------------|------------------|------|---|------------|---------|
| Repetitive Peak Reverse Voltage | V _{RRM} | V | | 400 | 600 |
| Average Forward Current | I _O | A | Half-sine wave, Resistance load, T _c (Fig.1) | 4.0 | |
| Surge(Nonrepetitive)Forward Current | I _{FSM} | A | 60HZ sine wave, 1 cycle, Ta=25°C | 125 | |
| Storage Temperature | T _{stg} | °C | | -55 ~ +150 | |
| Junction Temperature | T _j | °C | | -55 ~ +150 | |

Electrical Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER | Symbol | Unit | Conditions | MUR440S | MUR460S |
|-------------------------------|-------------------|-------|--|----------|---------|
| Peak Forward Voltage | V _{FM} | V | @I _F =3A | 1.25 | |
| | | | @I _F =4A | 1.3 | |
| Peak Reverse Current | I _{RRM1} | μA | V _{RM} =V _{RRM} | Ta=25°C | 10 |
| | I _{RRM2} | | | Ta=125°C | 250 |
| Maximum reverse recovery time | T _{rr} | ns | I _F =0.5A, I _R =1.0A, I _{rr} =0.25A | 50 | |
| Thermal Resistance | R _{θJ-L} | °C /W | Between junction and terminal | 12 | |



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■ Characteristics (Typical)

MUR440S THRU MUR460S

Super Fast Recovery Rectifier Diode FRED

FIG1: Forward Current Derating Curve

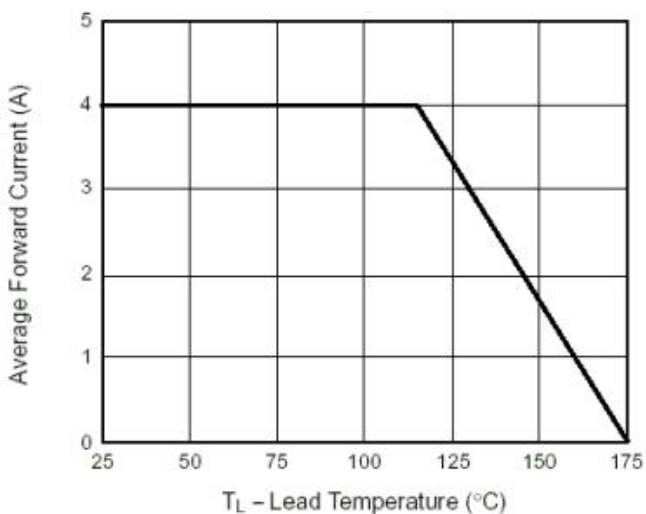


FIG2: Surge Forward Current Capability

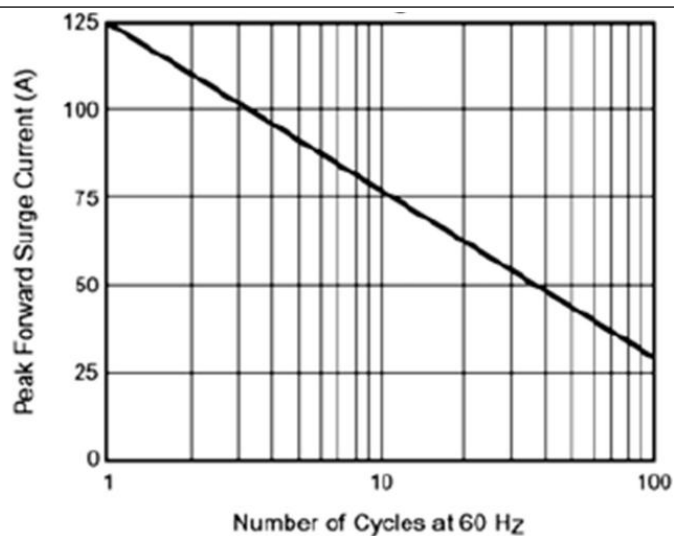


FIG3: Instantaneous Forward Voltage

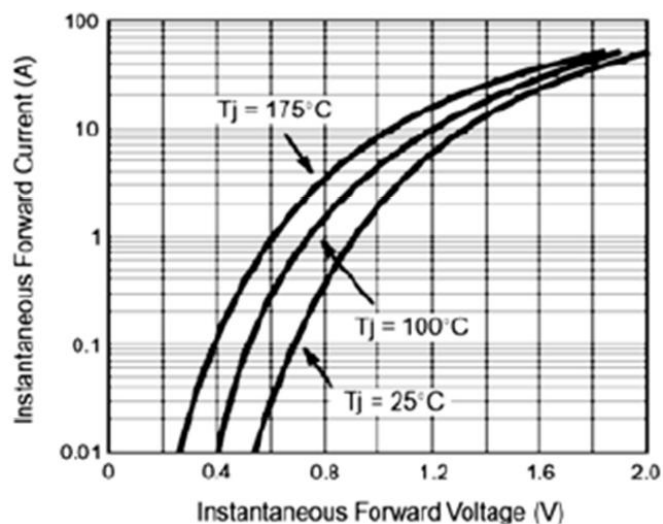


FIG4: Typical Reverse Characteristics

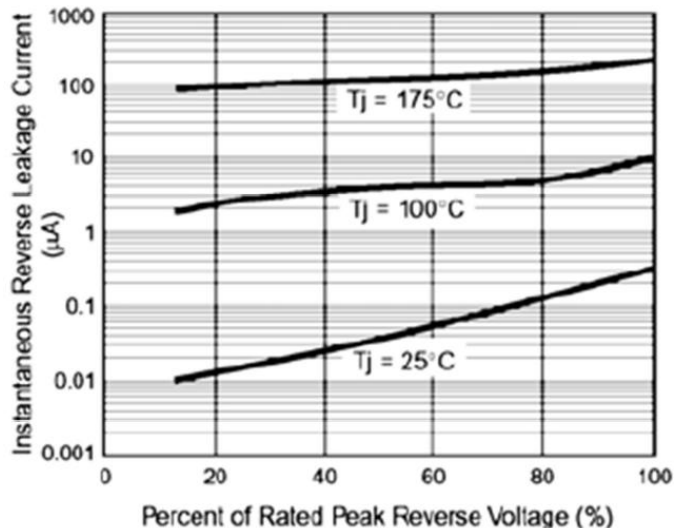
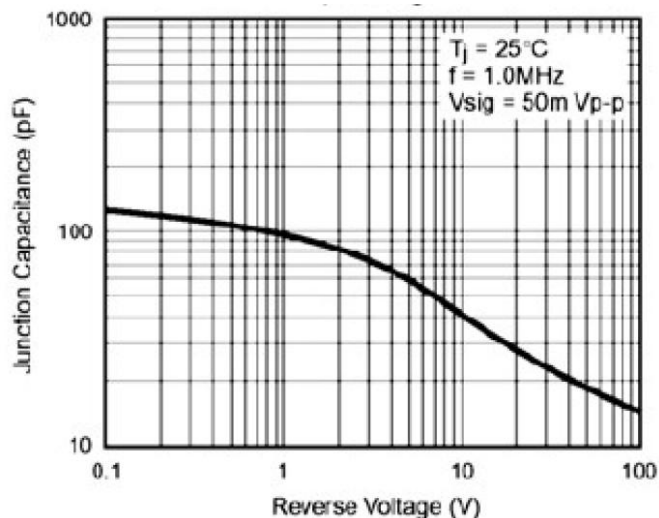


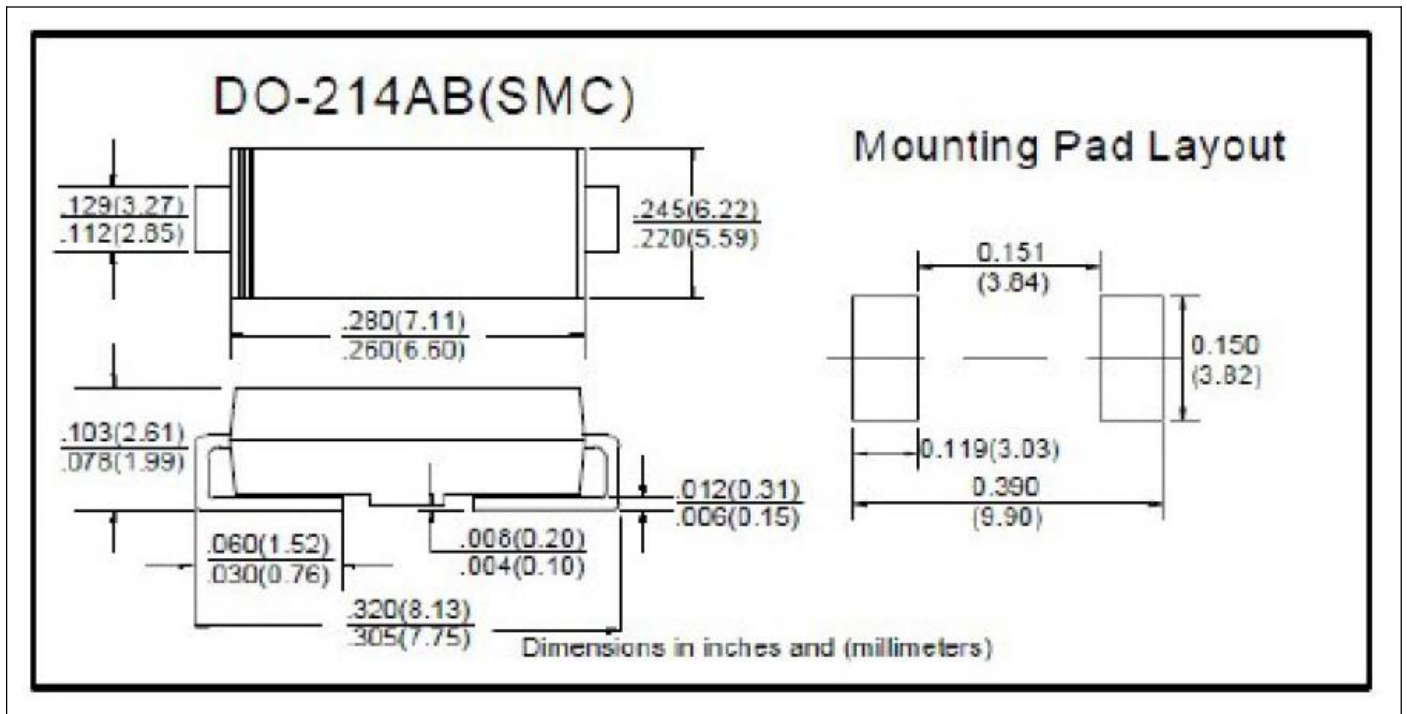
FIG5- Typical Junction Capacitance per Leg



Ordering Information (Example)

| PREFERRED | PACKAGE CODE | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|-----------------|---------------|----------------------|-------------------------|----------------------------|---------------|
| MUR440S~MUR460S | DO-214AB(SMC) | 3000 | 6000 | 42000 | 13" reel |

Outline Dimensions



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