

D1FT15A  
Schottky Barrier Diodes  
150V, 3A

Feature

- Small SMD
- High Voltage
- Tj=175°C
- Ultra low I<sub>R</sub>
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 1F  
Package (JEDEC Code): DO-214AC



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : Tl=25°C)

| Item                            | Symbol              | Conditions                                                           | Ratings    | Unit |
|---------------------------------|---------------------|----------------------------------------------------------------------|------------|------|
| Storage temperrature            | Tstg                |                                                                      | -55 to 175 | °C   |
| Junction temperature            | Tj                  |                                                                      | -55 to 175 | °C   |
| Repetitive peak reverse voltage | V <sub>RRM</sub>    |                                                                      | 150        | V    |
| Average forward current         | I <sub>F</sub> (AV) | 50Hz sine wave, Resistance load, Tl=116°C                            | 3          | A    |
| Average forward current         | I <sub>F</sub> (AV) | 50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※     | 1.8        | A    |
| Average forward current         | I <sub>F</sub> (AV) | 50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※ | 1.3        | A    |
| Surge forward current           | I <sub>FSM</sub>    | 50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25°C          | 60         | A    |

※ :See the original Specifications

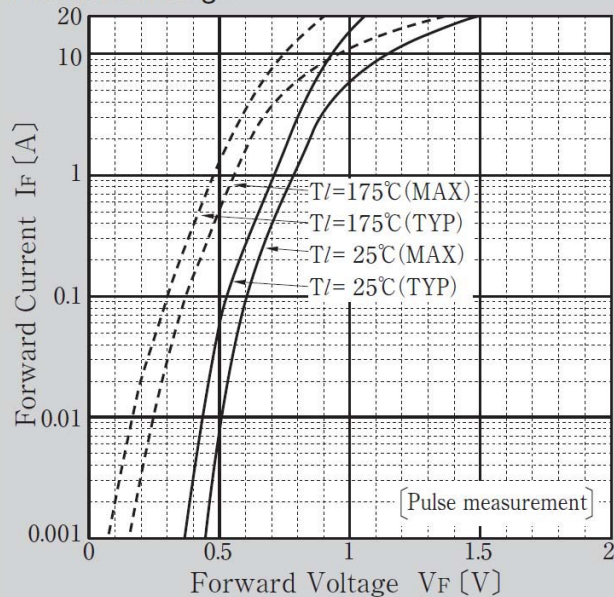
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

| Item               | Symbol   | Conditions                                      | Ratings |     |       | Unit |
|--------------------|----------|-------------------------------------------------|---------|-----|-------|------|
|                    |          |                                                 | MIN     | TYP | MAX   |      |
| Forward voltage    | $V_F$    | IF=3A, Pulse measurement                        |         |     | 0.88  | V    |
| Forward voltage    | $V_F$    | IF=1A, Pulse measurement                        |         |     | 0.78  | V    |
| Reverse current    | $I_R$    | VR=150V, Pulse measurement                      |         |     | 0.008 | mA   |
| Total capacitance  | $C_t$    | f=1MHz, VR=10V                                  |         | 52  |       | pF   |
| Thermal resistance | Rth(j-l) | Junction to lead                                |         |     | 23    | °C/W |
| Thermal resistance | Rth(j-a) | Junction to ambient, On alumina substrate ※     |         |     | 108   | °C/W |
| Thermal resistance | Rth(j-a) | Junction to ambient, On glass-epoxy substrate ※ |         |     | 157   | °C/W |

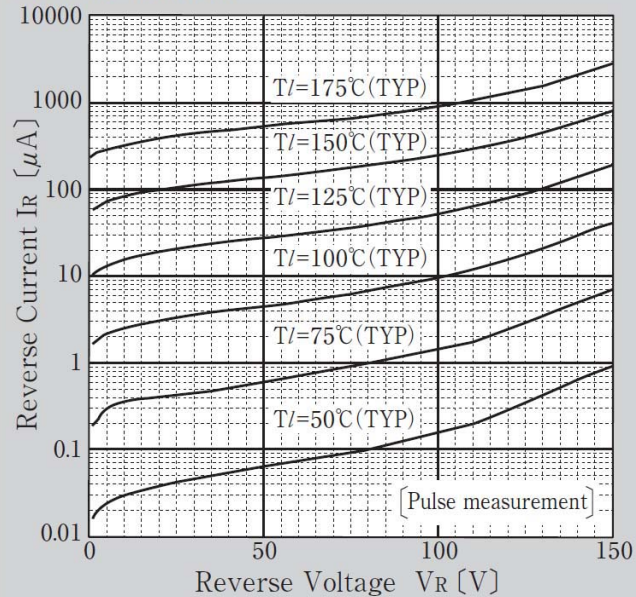
※ :See the original Specifications

## CHARACTERISTIC DIAGRAMS

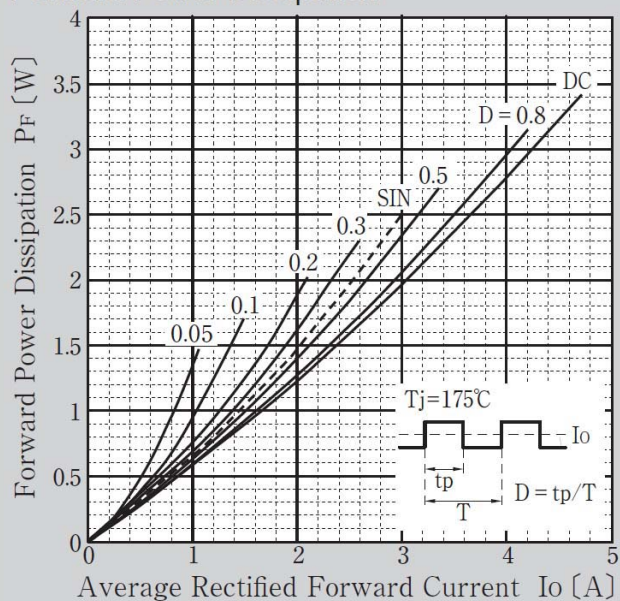
Forward Voltage



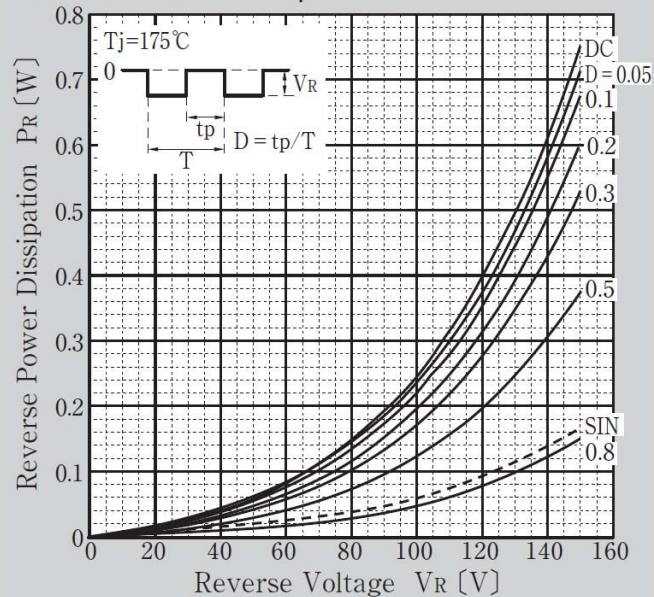
Reverse Current

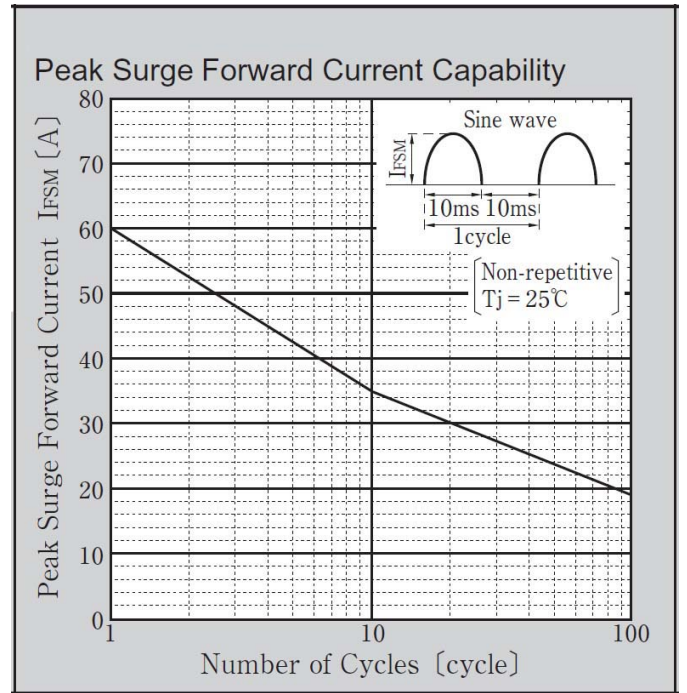
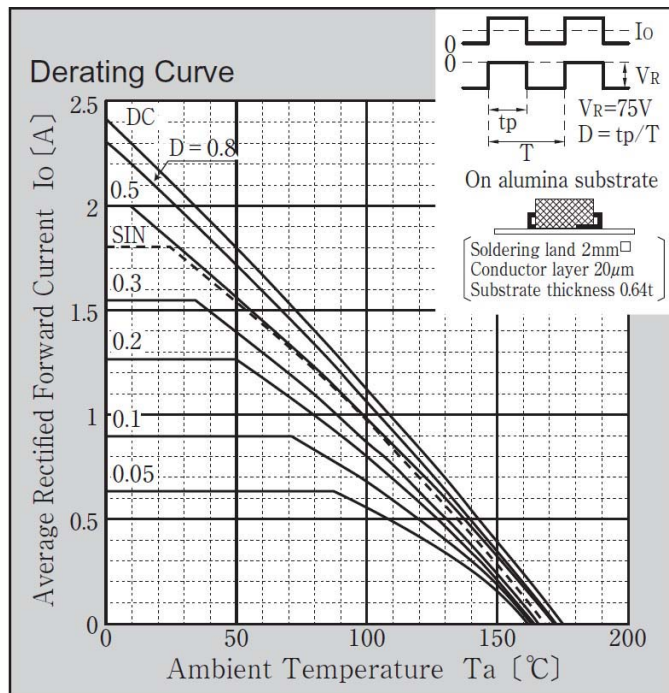
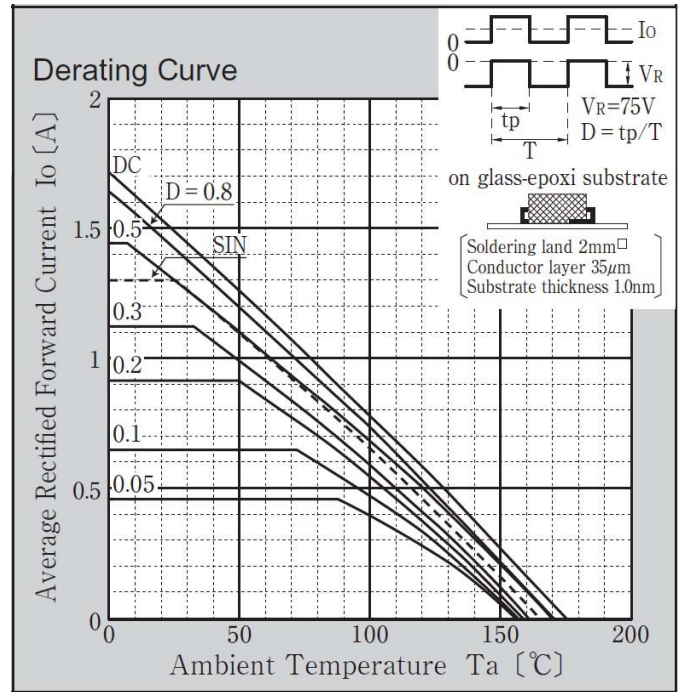
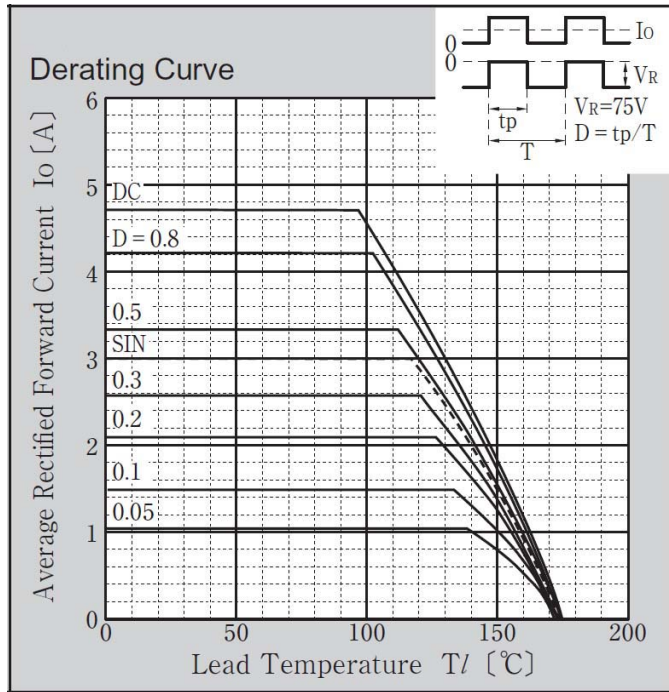


Forward Power Dissipation

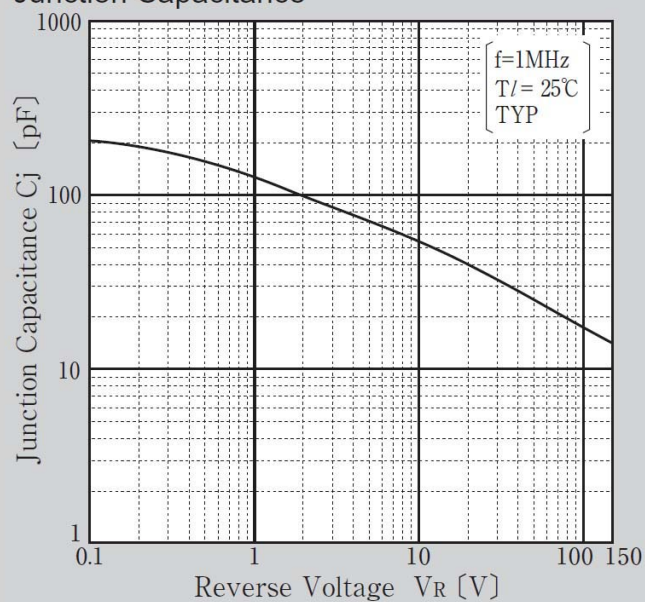


Reverse Power Dissipation

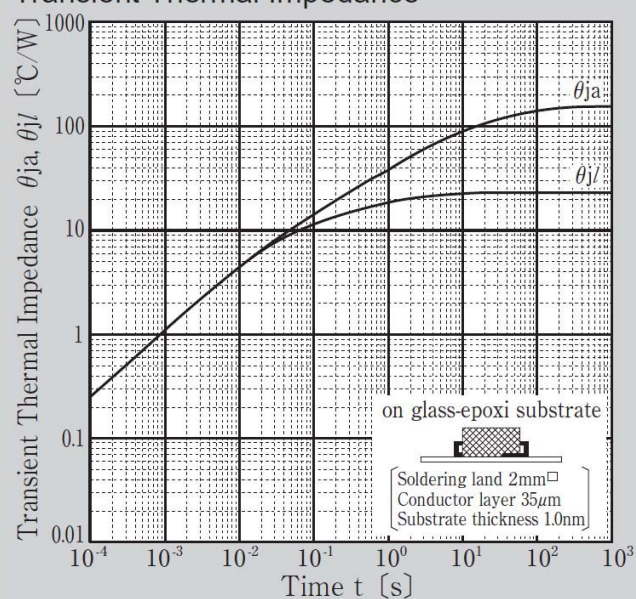




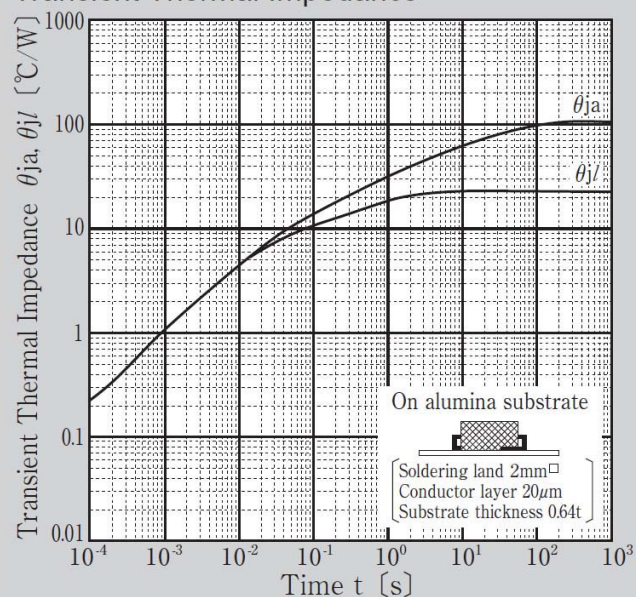
# Junction Capacitance



# Transient Thermal Impedance

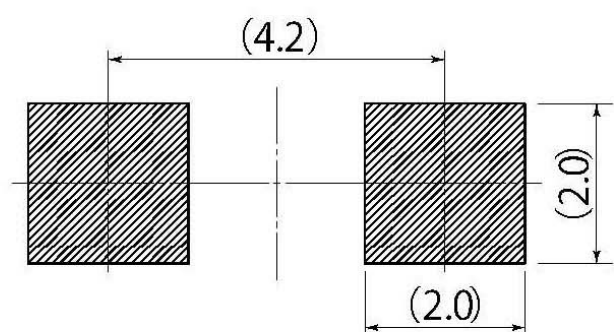
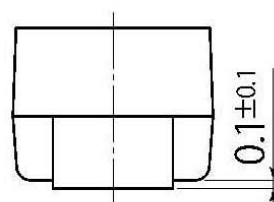
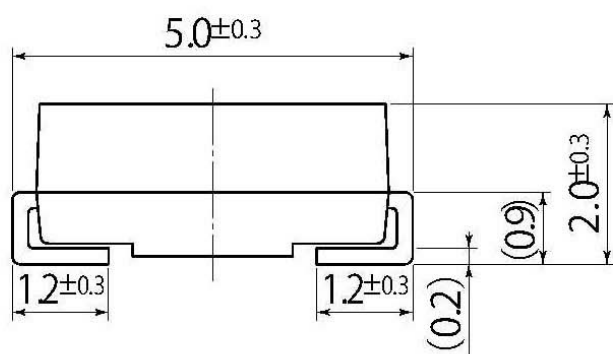
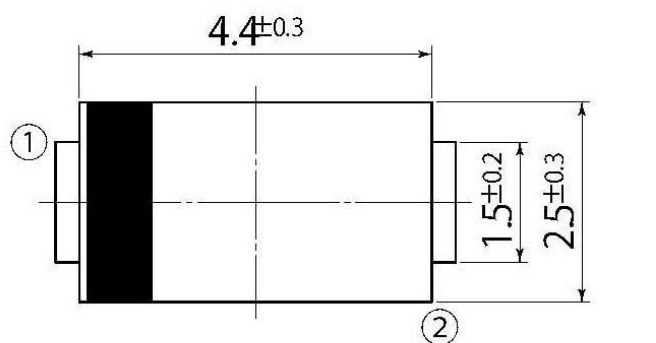


# Transient Thermal Impedance



B3

|            |          |
|------------|----------|
| JEDEC Code | DO-214AC |
| JEITA Code | —        |
| House Name | 1F, CF   |



Referential Soldering Pad

• Optimize soldering pad to the board design and soldering condition.

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