

# D6FEC15ST

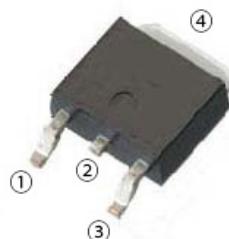
**Schottky Barrier Diodes**  
**150V, 6A**

## Feature

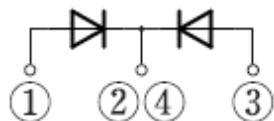
- SMD
- High Voltage
- $T_j=175^\circ\text{C}$
- Ultra low  $I_R$
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

## OUTLINE

Package (House Name): FE  
 Package (JEDEC Code): TO-252AB similar  
 Package (JEITA Code): SC-63



## Equivalent circuit



## Absolute Maximum Ratings (unless otherwise specified : $T_c=25^\circ\text{C}$ )

| Item                            | Symbol     | Conditions  | Ratings    | Unit |
|---------------------------------|------------|---|------------|------|
| Storage temperature             | $T_{stg}$  |   | -55 to 175 | °C   |
| Junction temperature            | $T_j$      |   | -55 to 175 | °C   |
| Repetitive peak reverse voltage | $V_{RRM}$  |   | 150        | V    |
| Average forward current         | $I_F(AV)$  | 50Hz sine wave, Resistance load, Rating for each diode $I_F(AV)/2$ , $T_c=154^\circ\text{C}$ $\ddagger$ | 6          | A    |
| Surge forward current           | $I_{FSM}$  | 50Hz sine wave, Non-repetitive, 1cycle, Peak value, $T_j=25^\circ\text{C}$                              | 100        | A    |
| Surge forward current           | $I_{FSM1}$ | $t_p=1\text{ms}$ , Sine wave, Non-repetitive, Peak value, $T_j=25^\circ\text{C}$                        | 180        | A    |

$\ddagger$  : See the original Specifications

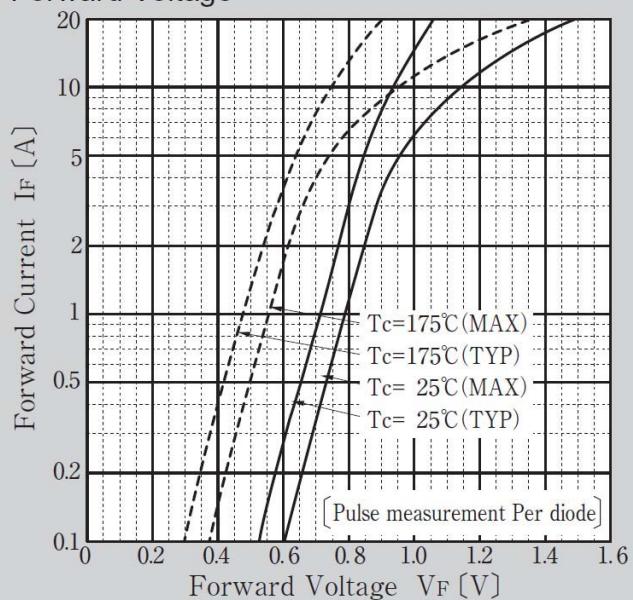
**Electrical Characteristics** (unless otherwise specified :  $T_c=25^\circ\text{C}$ )

| Item               | Symbol        | Conditions                                      | Ratings |     |       | Unit               |
|--------------------|---------------|---|---------|-----|-------|--------------------|
|                    |               |   | MIN     | TYP | MAX   |                    |
| Forward voltage    | $V_F$         | $IF=3\text{A}$ , Pulse measurement, per diode   |         |     | 0.88  | V                  |
| Reverse current    | $I_R$         | $VR=150\text{V}$ , Pulse measurement, per diode |         |     | 0.008 | mA                 |
| Total capacitance  | $C_t$         | $f=1\text{MHz}$ , $VR=10\text{V}$ , per diode   |         | 52  |       | pF                 |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case, With heatsink $\ddagger$      |         |     | 4     | $^\circ\text{C/W}$ |

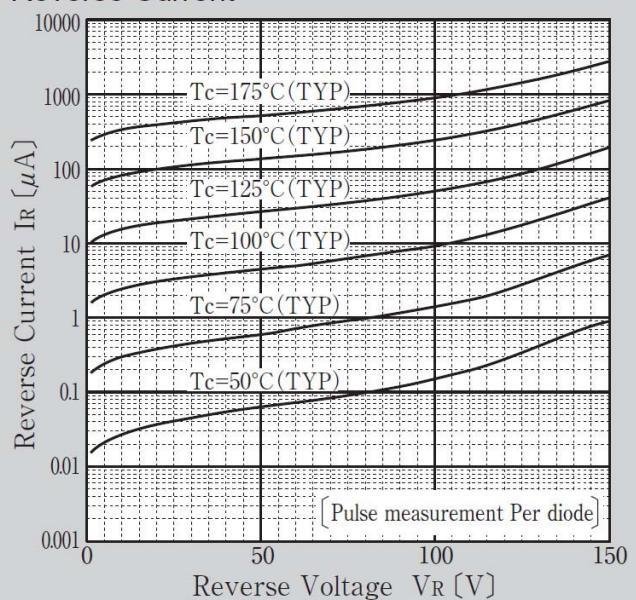
$\ddagger$  :See the original Specifications

## CHARACTERISTIC DIAGRAMS

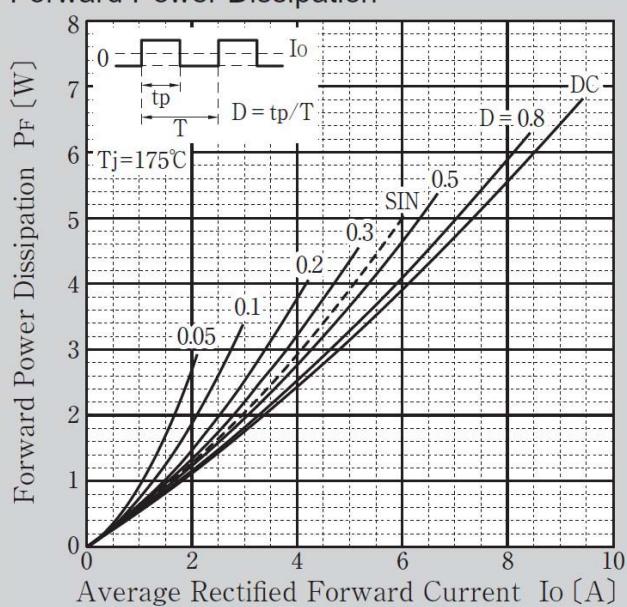
Forward Voltage



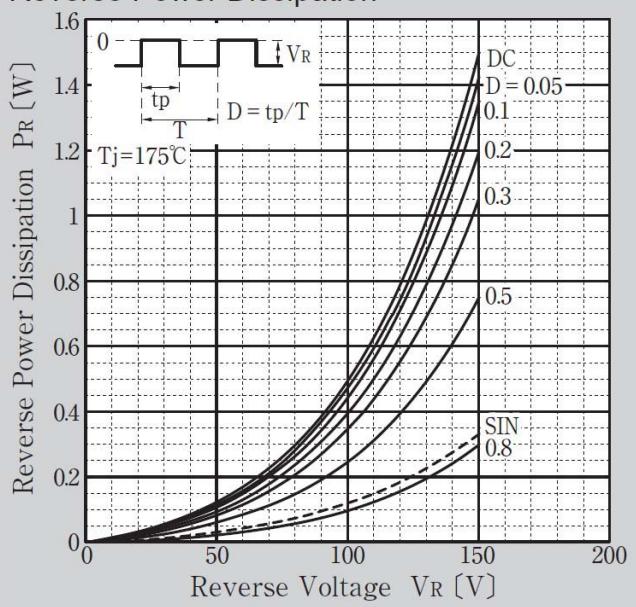
Reverse Current

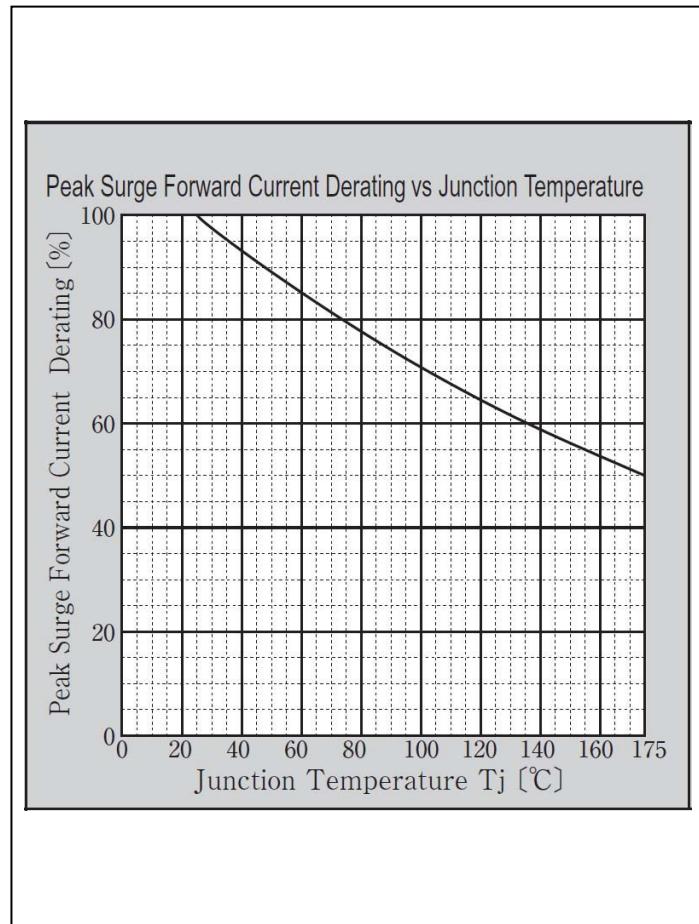
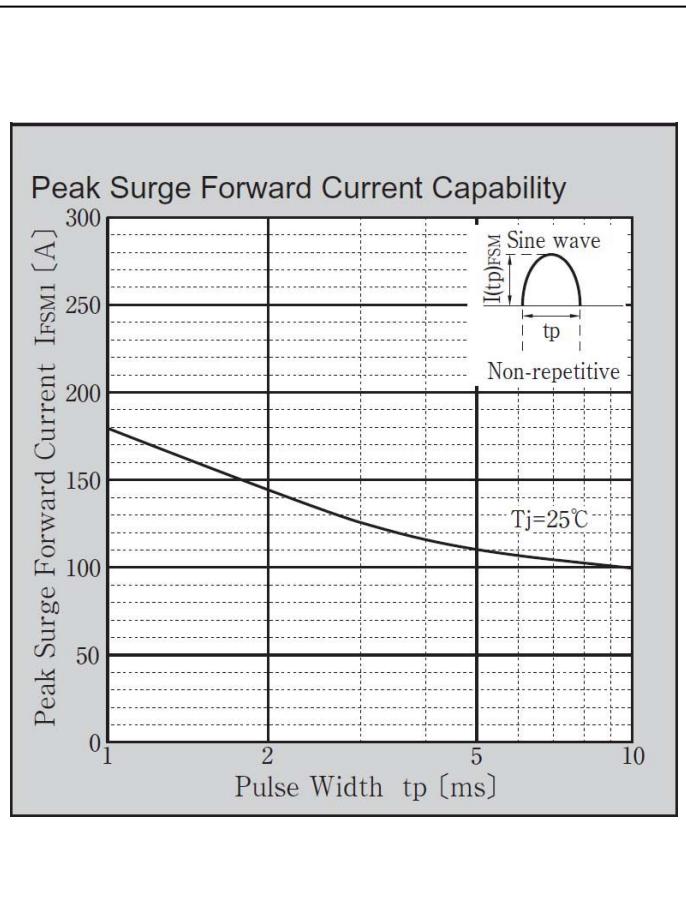
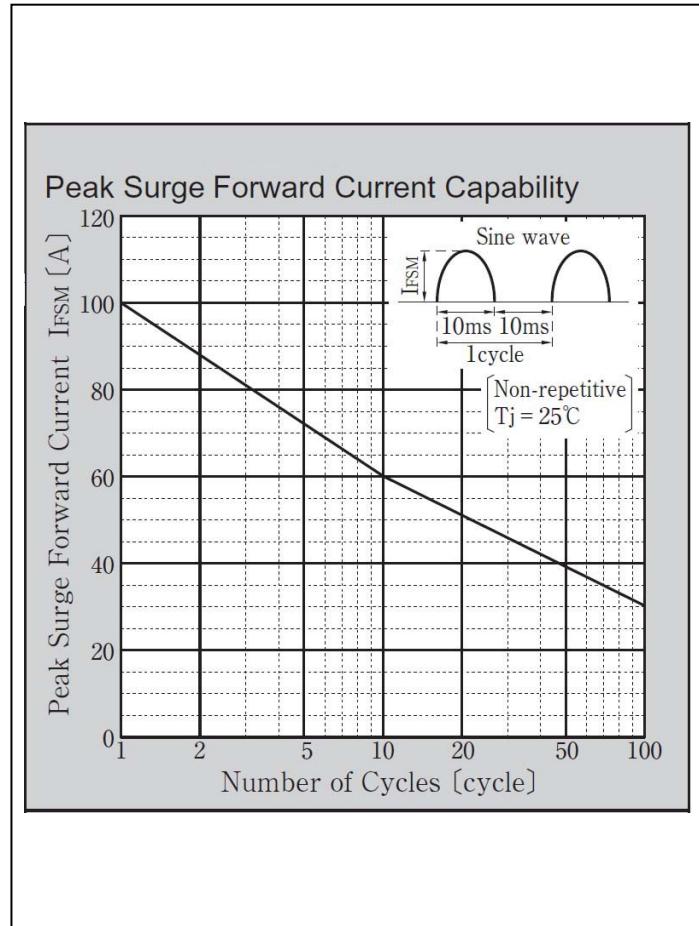
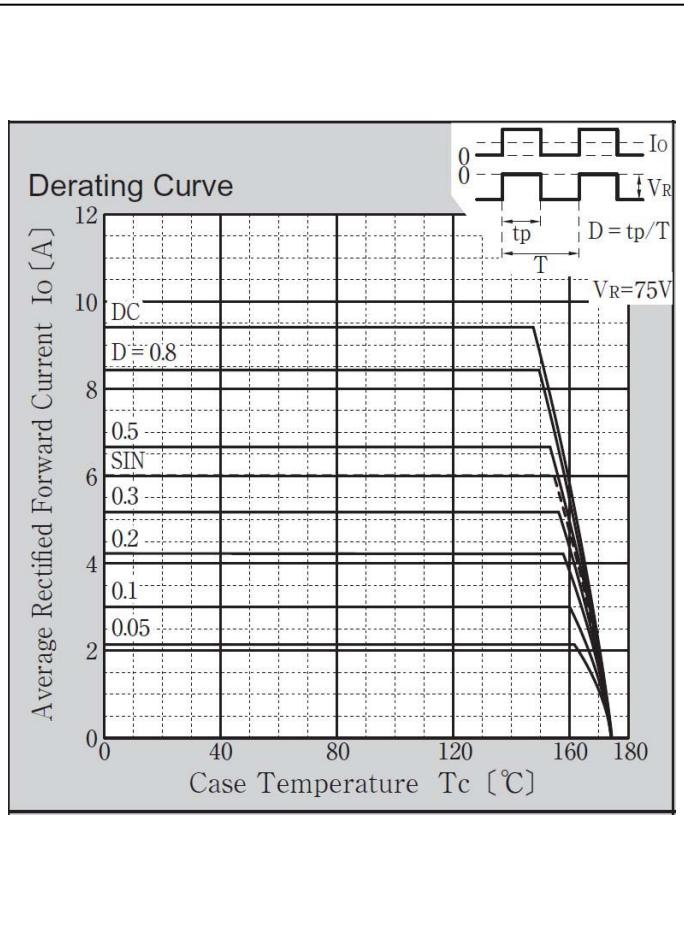


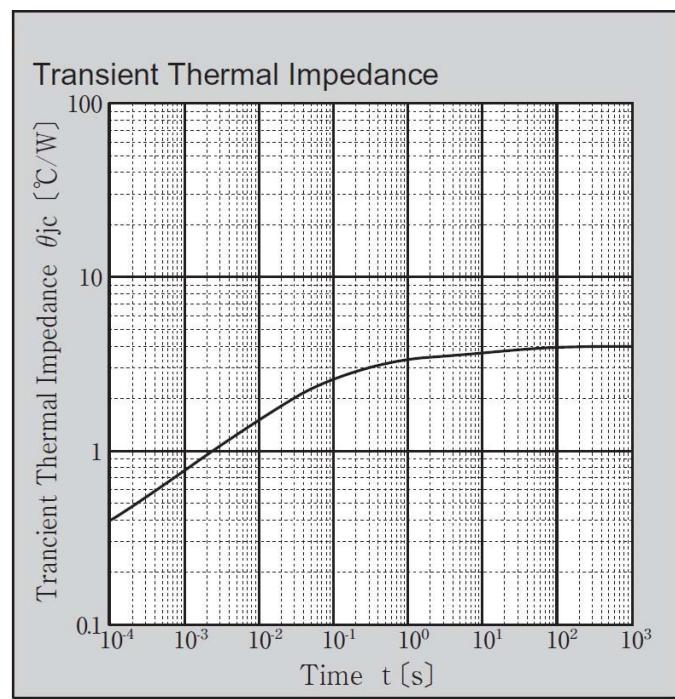
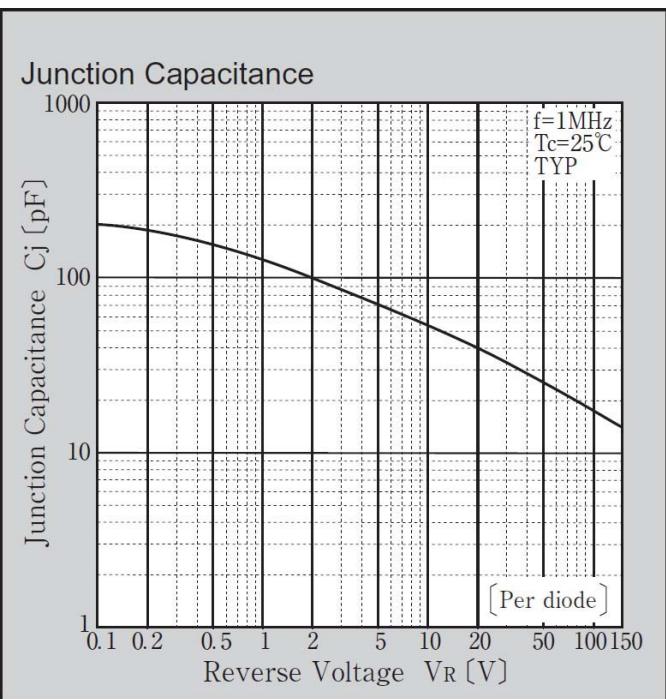
Forward Power Dissipation



Reverse Power Dissipation







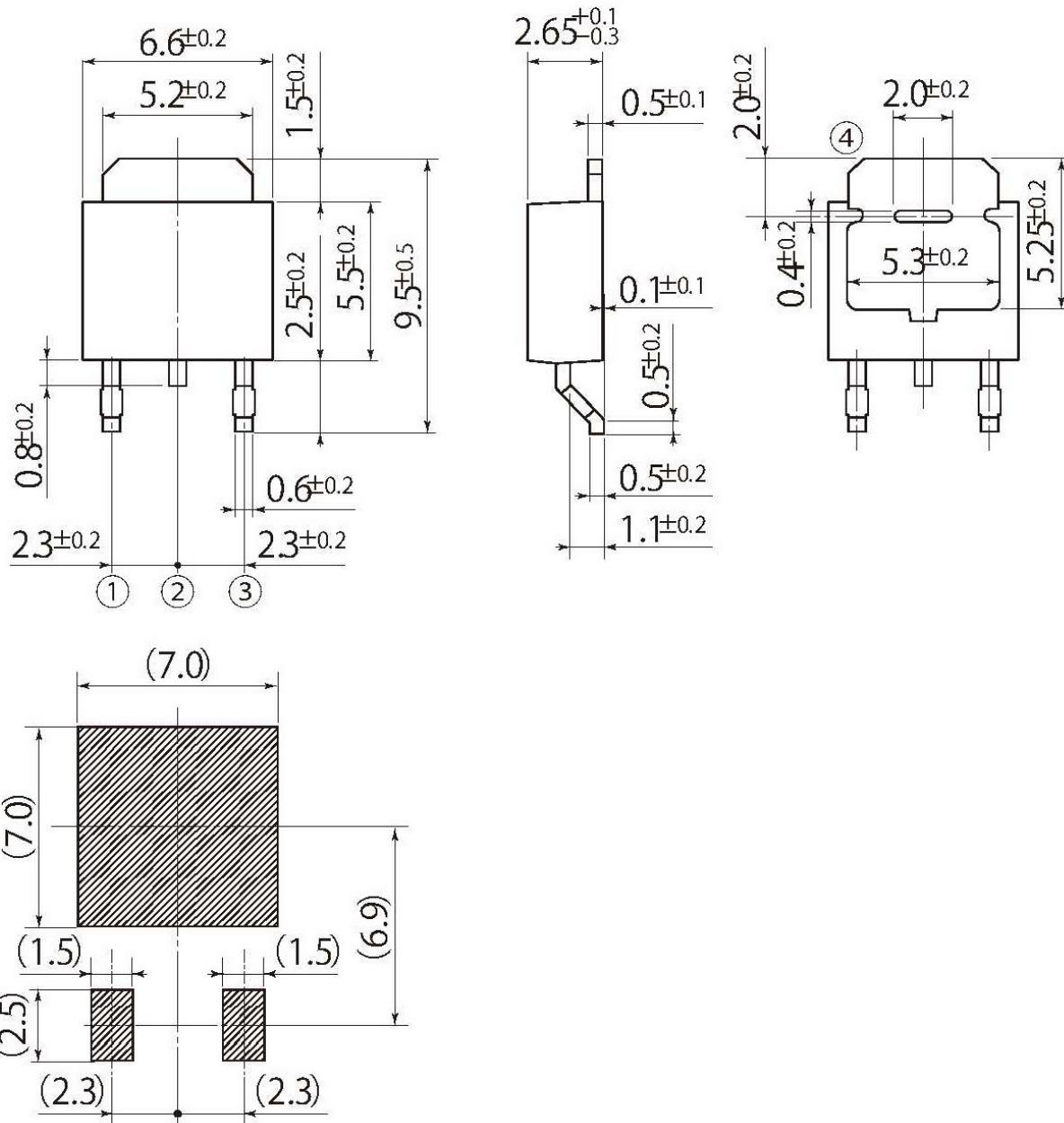
## Outline Dimensions

unit:mm

scale: 4/1

G3

|            |                  |
|------------|------------------|
| JEDEC Code | TO-252AB similar |
| JEITA Code | SC-63            |
| House Name | FE               |



Referential Soldering Pad

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

## Notes

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