

# KL3R20

## Thyristor Surge Suppressors 175V, 30A

### Feature

- Bi-directional characteristic
- High-speed response characteristic
- Large surge current capacity
- Capable of repeated use for surges
- Pb free terminal
- RoHS:Yes

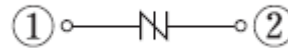
### OUTLINE

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 temperature             | T <sub>stg</sub> |                           | -40 to 125 | °C   |
| Junction temperature            | T <sub>j</sub>   |                           | 125        | °C   |
| Repetitive peak reverse voltage | V <sub>DRM</sub> |                           | 175        | V    |
| Peak surge on-state current     | I <sub>TSM</sub> | 10/1000μs, Non-repetitive | 30         | A    |
| Peak surge on-state current     | I <sub>TSM</sub> | 8/20μs, Non-repetitive    | 100        | A    |

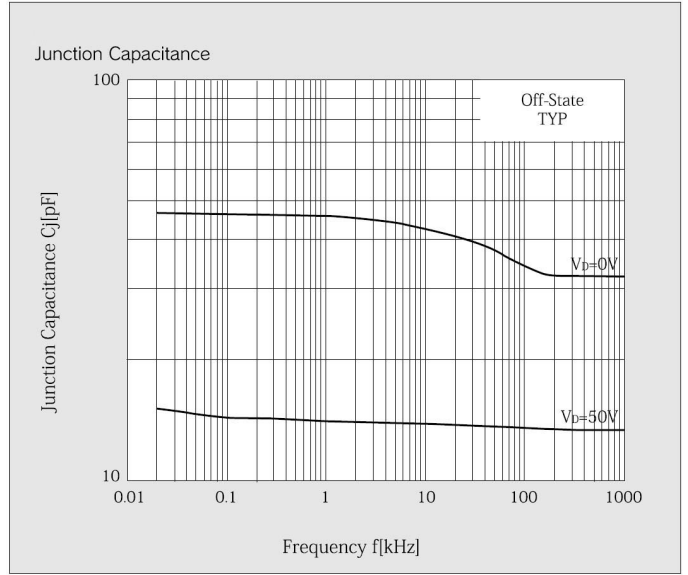
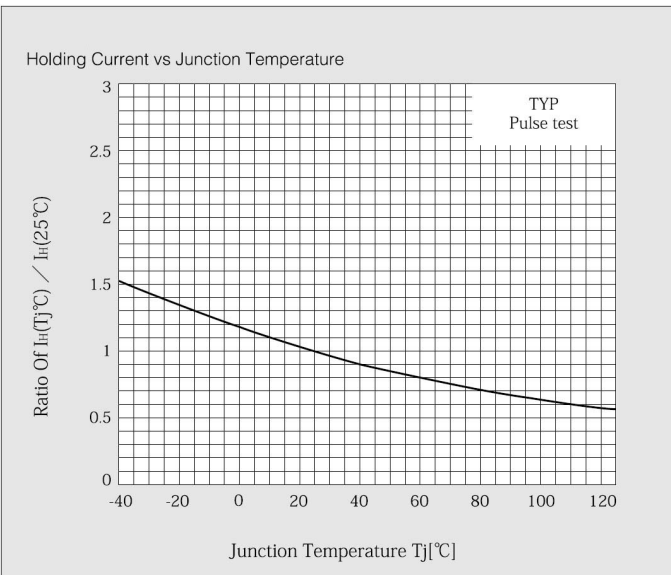
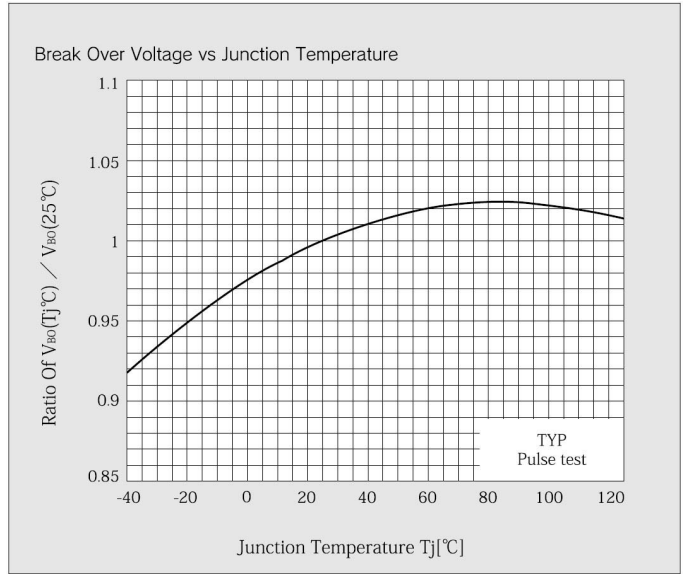
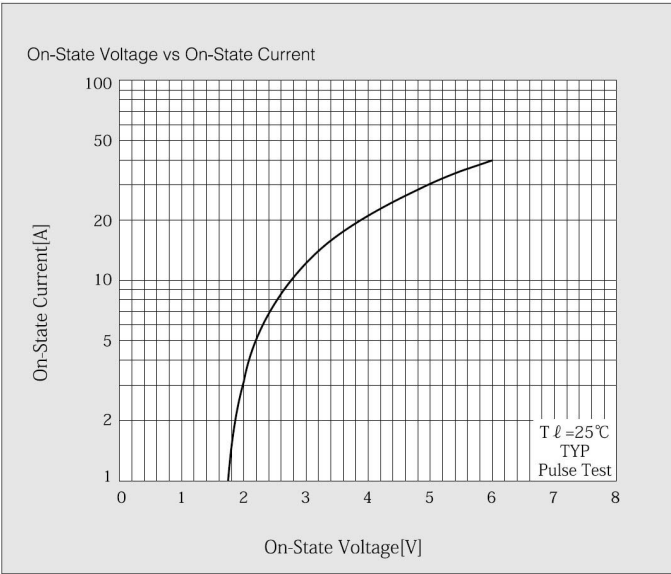
※ : See the original Specifications

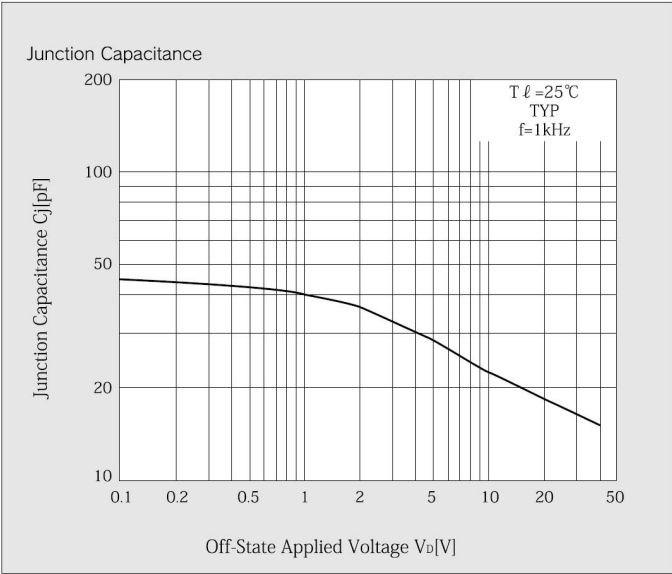
### Electrical Characteristics (unless otherwise specified : Tl=25°C)

| Item                 | Symbol           | Conditions                  | Ratings |     |     | Unit |
|----------------------|------------------|-----------------------------|---------|-----|-----|------|
|                      |                  |                             | MIN     | TYP | MAX |      |
| Breakover voltage    | V <sub>BO</sub>  | Pulse measurement           | 180     |     |     | V    |
| Clamping voltage     | V <sub>CL</sub>  | dV/dt=100V/μs               |         |     | 250 | V    |
| Off-state current    | I <sub>DSM</sub> | VD=175V                     |         |     | 10  | μA   |
| Holding current      | I <sub>H</sub>   | Pulse measurement           | 100     |     |     | mA   |
| On-State Voltage     | V <sub>T</sub>   | IT=2A                       |         | 1.8 |     | V    |
| Junction capacitance | C <sub>j</sub>   | f=1kHz, VD=50VDC, OSC=1Vrms |         |     | 30  | pF   |

※ : See the original Specifications

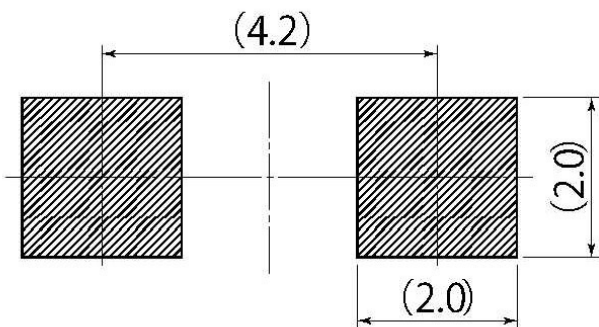
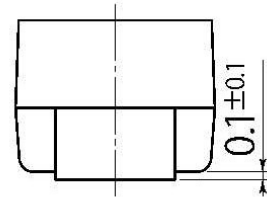
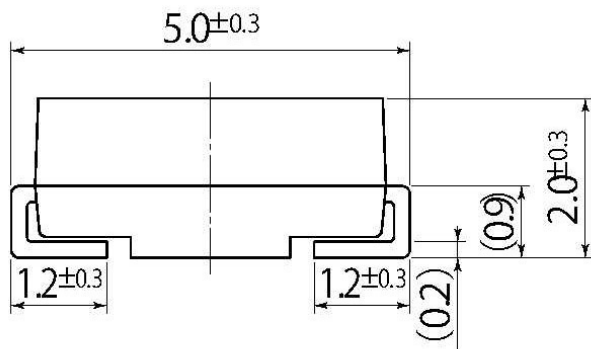
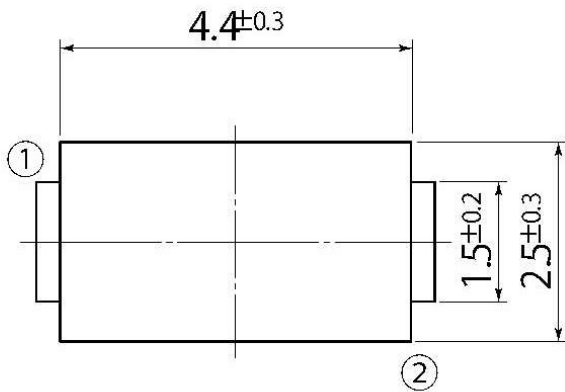
# CHARACTERISTIC DIAGRAMS





B4

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



Referential Soldering Pad

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