

US30KB80R

Bridge Diodes

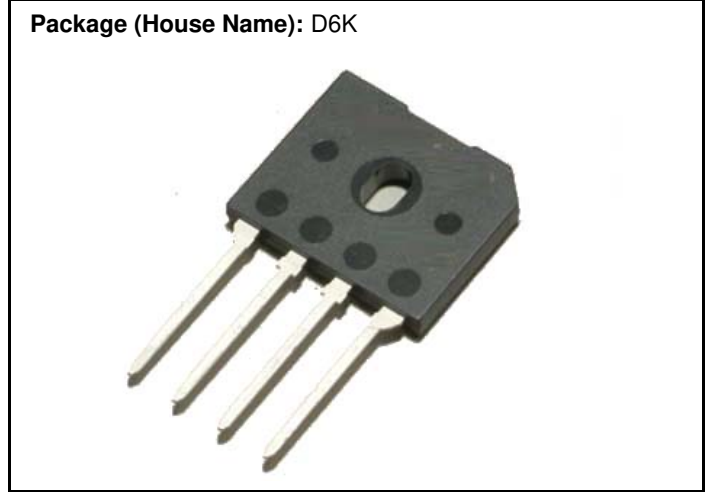
800V, 30A

Feature

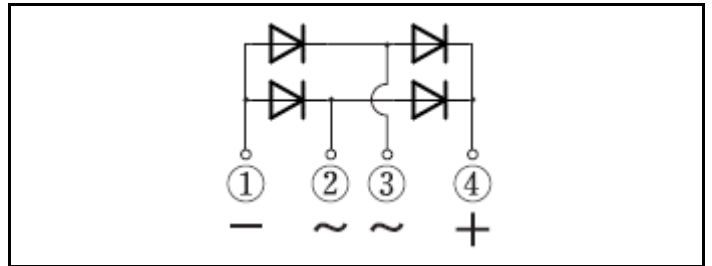
- Small・Compact SIP
- UL E142422
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): D6K



Equivalent circuit



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

| Item | Symbol | Conditions | Ratings | Unit |
|---------------------------------|--------------------|---|------------|------------------|
| Storage temperature | T _{stg} | | -55 to 150 | °C |
| Junction temperature | T _j | | -55 to 150 | °C |
| Repetitive peak reverse voltage | V _{RRM} | | 800 | V |
| Average forward current | I _{F(AV)} | 60Hz sine wave, Resistance load, With heatsink, T _c =97°C | 30 | A |
| Average forward current | I _{F(AV)} | 60Hz sine wave, Resistance load, On glass-epoxy substrate, T _a =27°C ※ | 2.1 | A |
| Surge forward current | I _{FSM} | 60Hz sine wave, Non-repetitive 1 cycle peak value, T _j =25°C | 350 | A |
| Surge forward current | I _{FSM1} | t _p =1ms, sine wave, Non-repetitive, peak value, per diode, T _j =25°C | 1000 | A |
| Current squared time | I ² t | 1ms ≤ t _p < 8.3ms, T _j =25°C, per diode | 510 | A ² s |
| Dielectric strength | V _{dis} | Terminals to case, AC 1 minute | 2 | kV |
| Mounting torque | TOR | (Recommended torque : 0.5N·m) | 0.8 | N·m |

※ : See the original Specifications

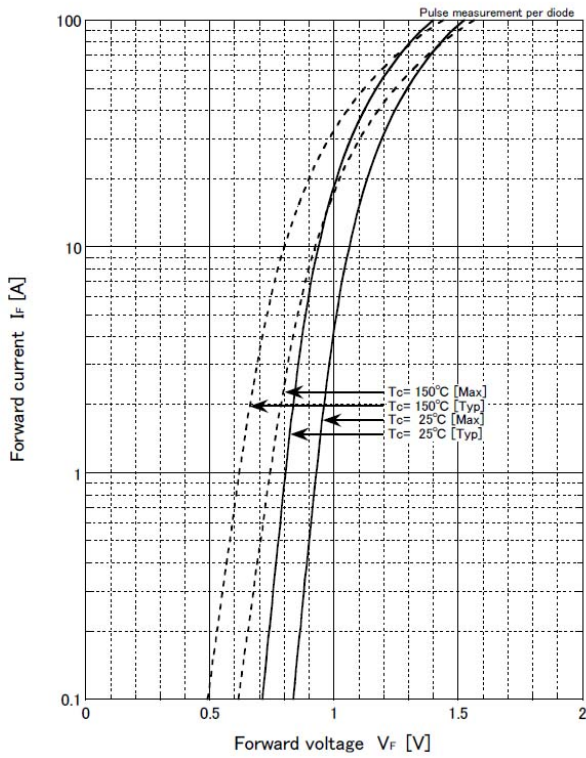
Electrical Characteristics (unless otherwise specified : Tc=25°C)

| Item | Symbol | Conditions | Ratings | | | Unit |
|--------------------|----------------------|--|---------|-----|-----|------|
| | | | MIN | TYP | MAX | |
| Forward voltage | V _F | I _F =15A, Pulse measurement, per diode | | | 1.1 | V |
| Reverse current | I _R | V _R =800V, Pulse measurement, per diode | | | 10 | μA |
| Thermal resistance | R _{th(j-c)} | Junction to case, With heatsink | | | 0.8 | °C/W |
| Thermal resistance | R _{th(j-l)} | Junction to lead, On glass-epoxy substrate ※ | | | 5 | °C/W |
| Thermal resistance | R _{th(j-a)} | Junction to ambient, On glass-epoxy substrate ※ | | | 35 | °C/W |

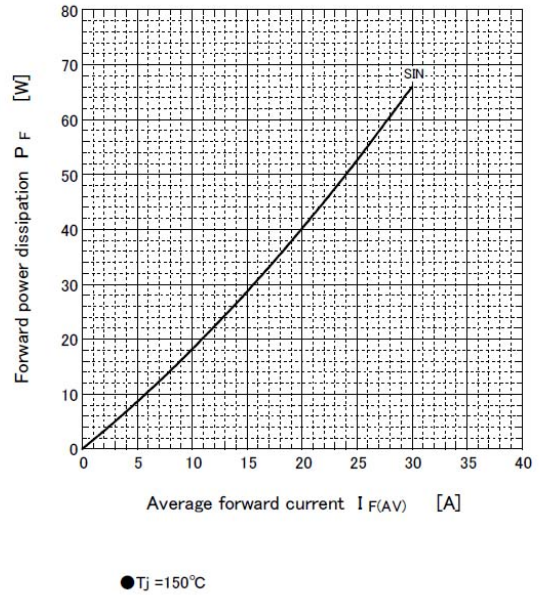
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

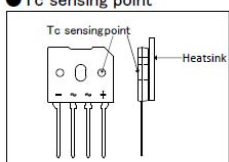
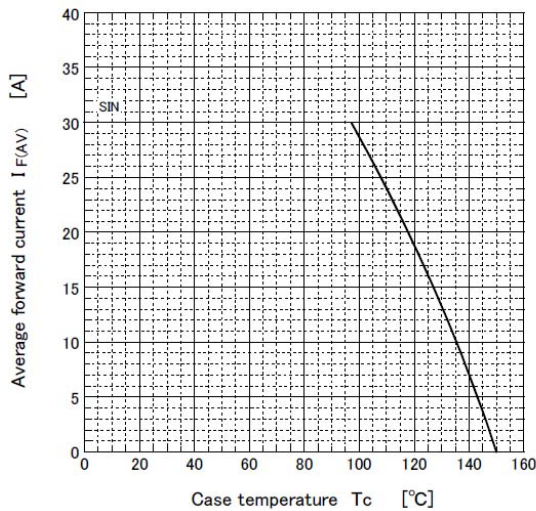
Forward voltage



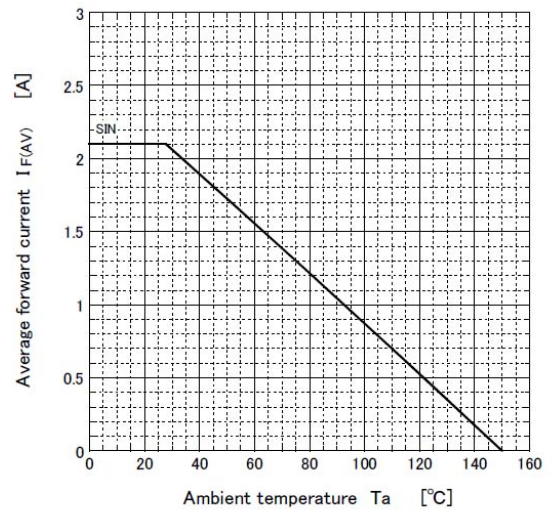
Forward power dissipation



Derating curve

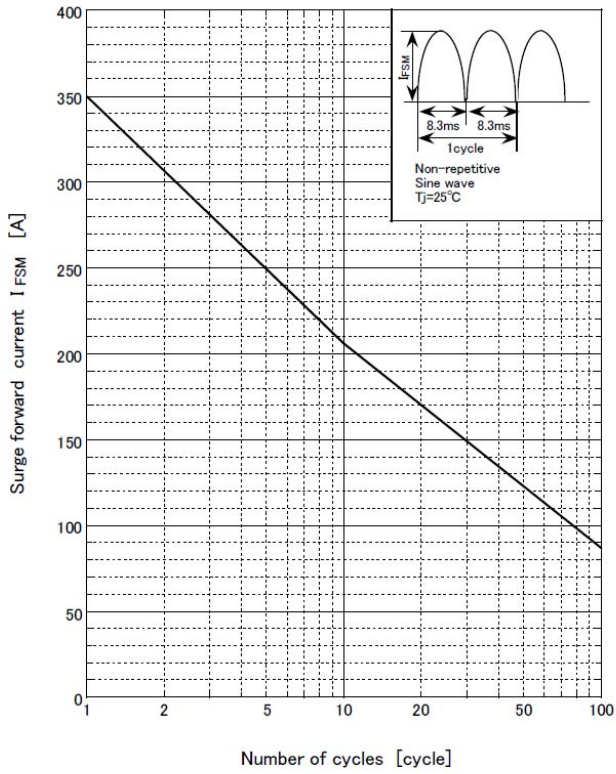


Derating curve

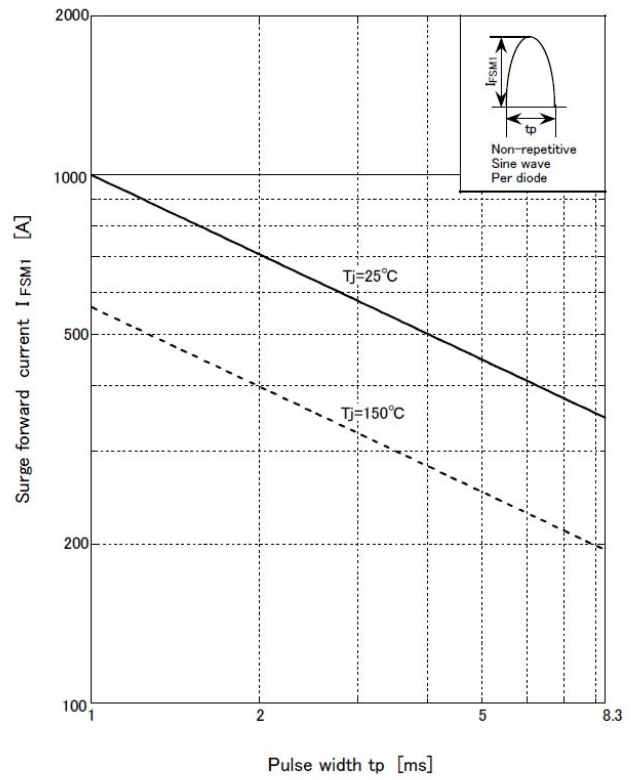


| Type | Glass-epoxy |
|---------------------|--------------------|
| Size | 90mm × 150mm |
| Thickness | 1mm |
| Conductor thickness | 35μm |
| Pattern area | 160mm ² |

Surge forward current capability

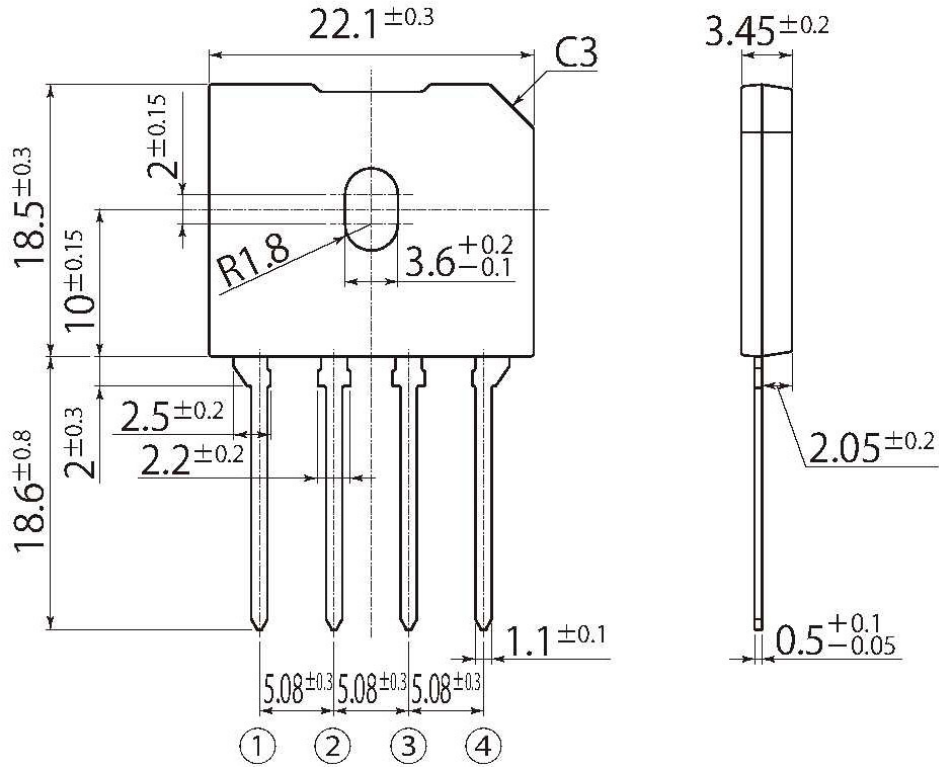


Surge forward current capability



D11

| | |
|------------|-----|
| JEDEC Code | — |
| JEITA Code | — |
| House Name | D6K |



Notes

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