

US20KB80HR

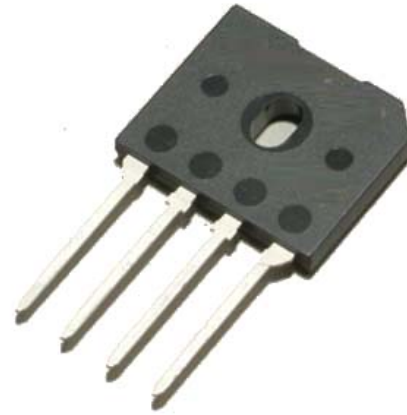
Bridge Diodes
800V, 20A

Feature

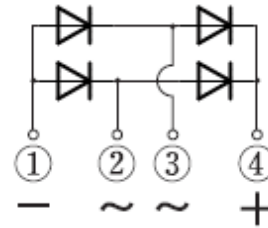
- Compact SIP
- UL E142422
- High Current
- High heat dissipation
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): D6K



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	Tstg		-55 to 150	°C
Junction temperature	Tj		-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, Tc=132°C	20	A
Average forward current	I _{F(AV)}	60Hz sine wave, Resistance load, Without heatsink, Tl=132°C	2.23	A
Average forward current	I _{F(AV)}	60Hz sine wave, Resistance load, Without heatsink, Ta=25°C	2.23	A
Surge forward current	I _{FSM}	60Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	300	A
Surge forward current	I _{FSM1}	tp=2ms, Tj=25°C, Non-repetitive	612	A
Current squared time	I ² t	2ms ≤ tp < 8.3ms, Tj=25°C, per diode	375	A ² s
Dielectric strength	Vdis	Terminals to case, AC 1 minute	2	kV
Mounting torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

※ : See the original Specifications

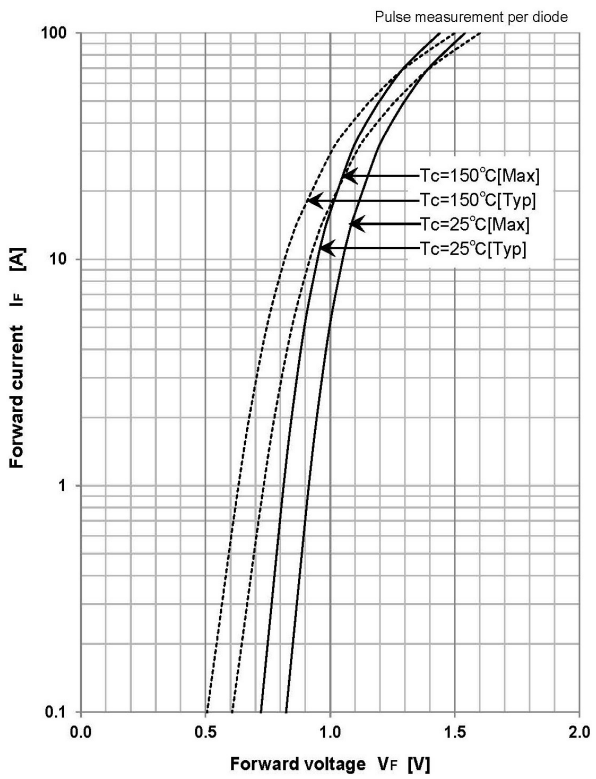
Electrical Characteristics (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=10A, Pulse measurement, per diode			1.05	V
Reverse current	I_R	VR=800V, Pulse measurement, per diode			10	μ A
Reverse recovery time	trr	IF=0.1A, IR=0.1A, 0.1 IR per diode			20	ns
Thermal resistance	Rth(j-c)	Junction to case, With heatsink			1	°C/W
Thermal resistance	Rth(j-l)	Junction to lead,			5	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient,			35	°C/W

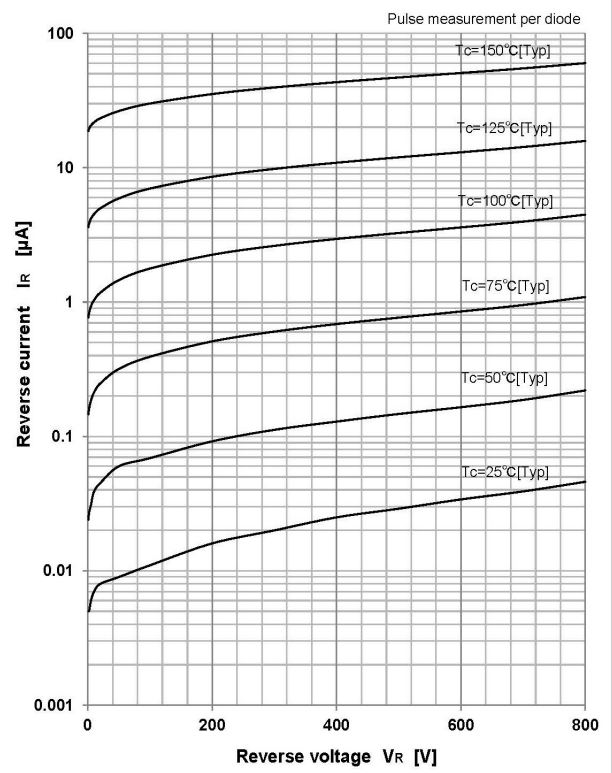
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

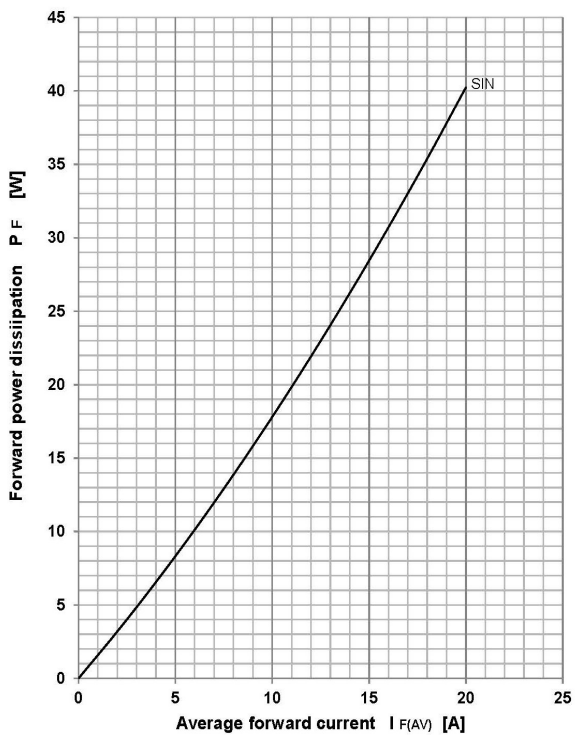
Forward voltage



Reverse current

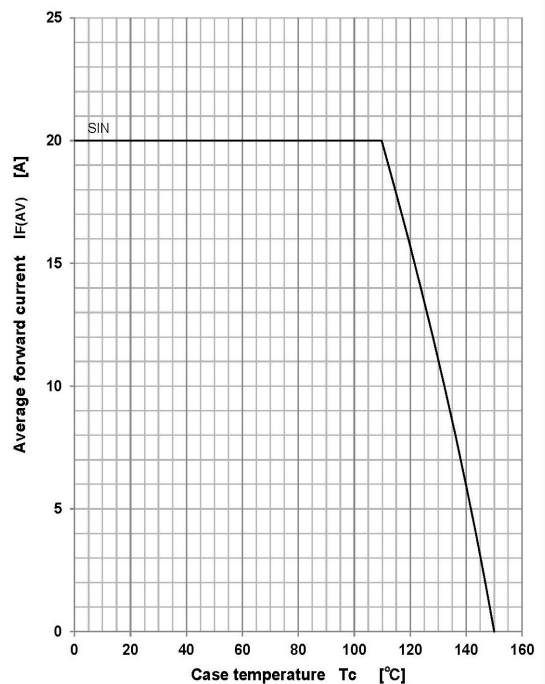


Forward power dissipation

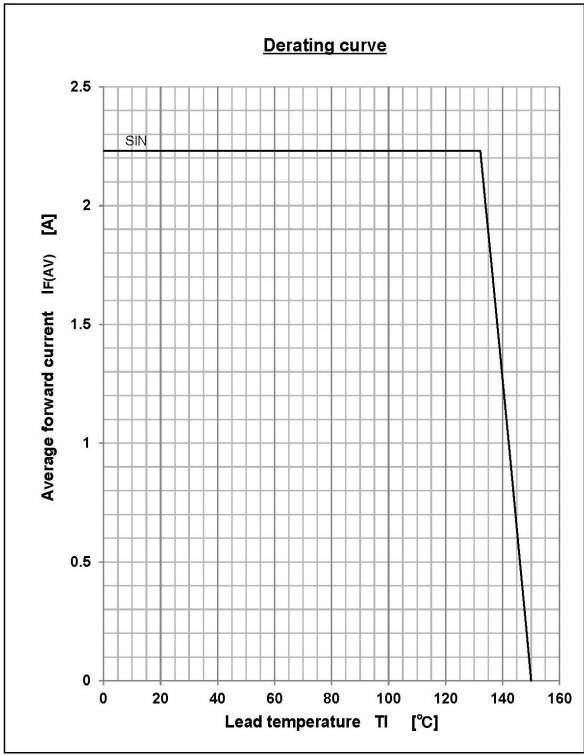


● $T_j = 150^\circ\text{C}$

Derating curve



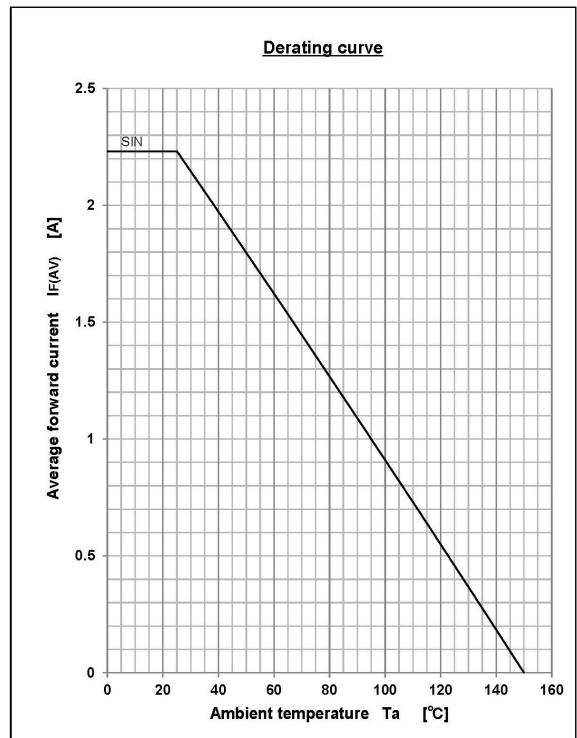
● $V_R = 800\text{ V}$
 R - load
 With heatsink



● $V_R = 800$ V
R - load
Free in air

● Substrate detail

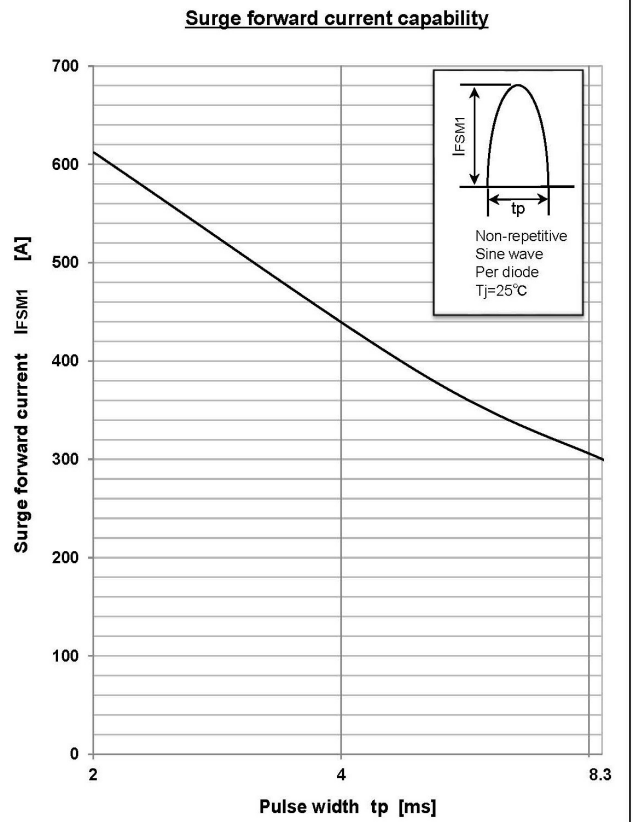
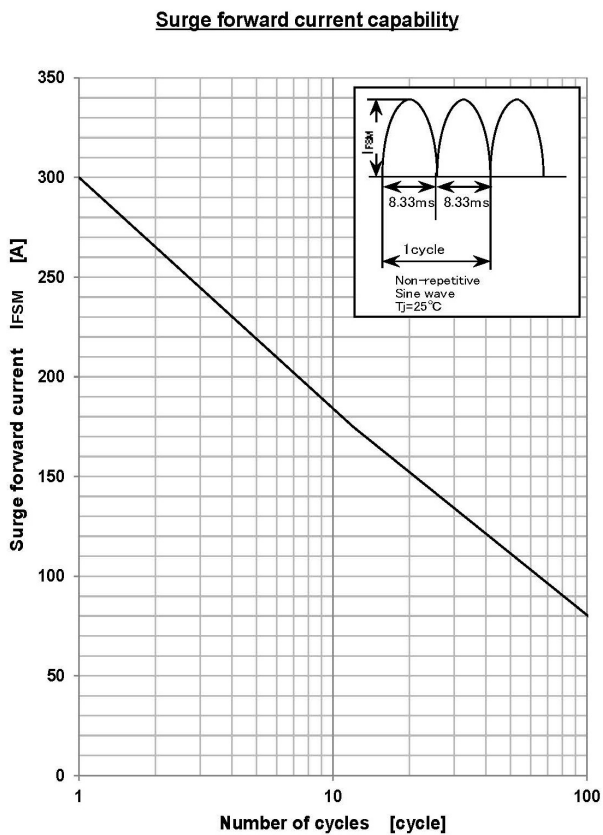
Type	Glass-epoxy
Size	90mm×150mm
Thickness	1 mm
Conductor thickness	35 μ m
Pattern area	160 mm ²

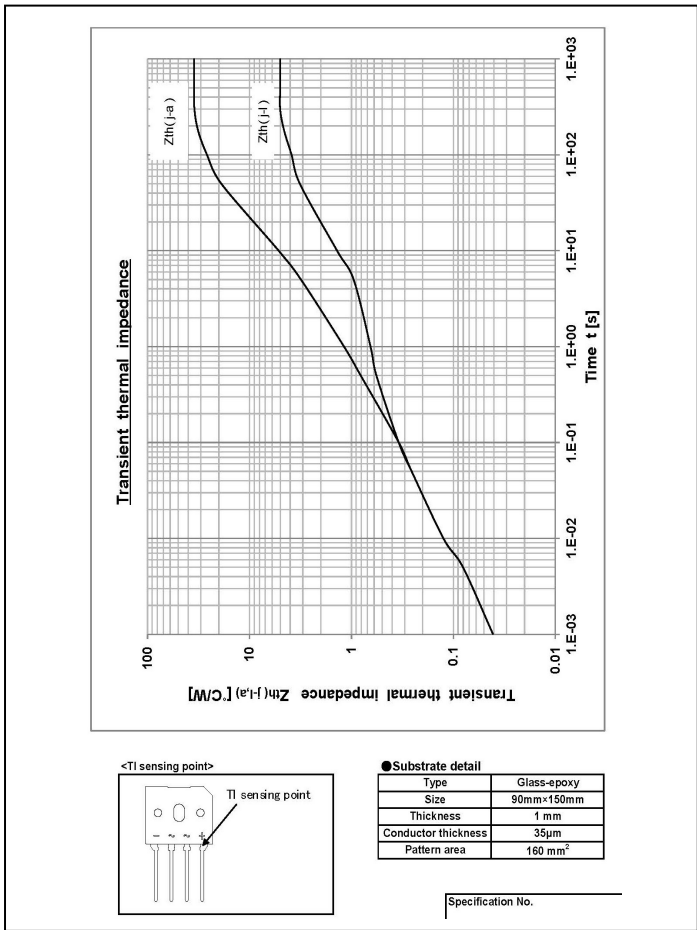
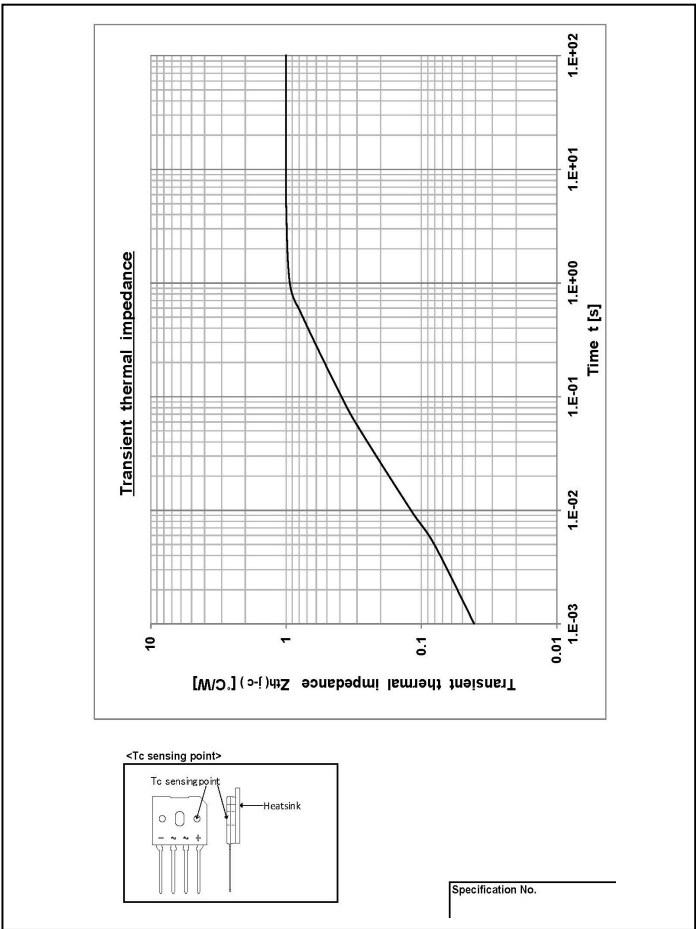
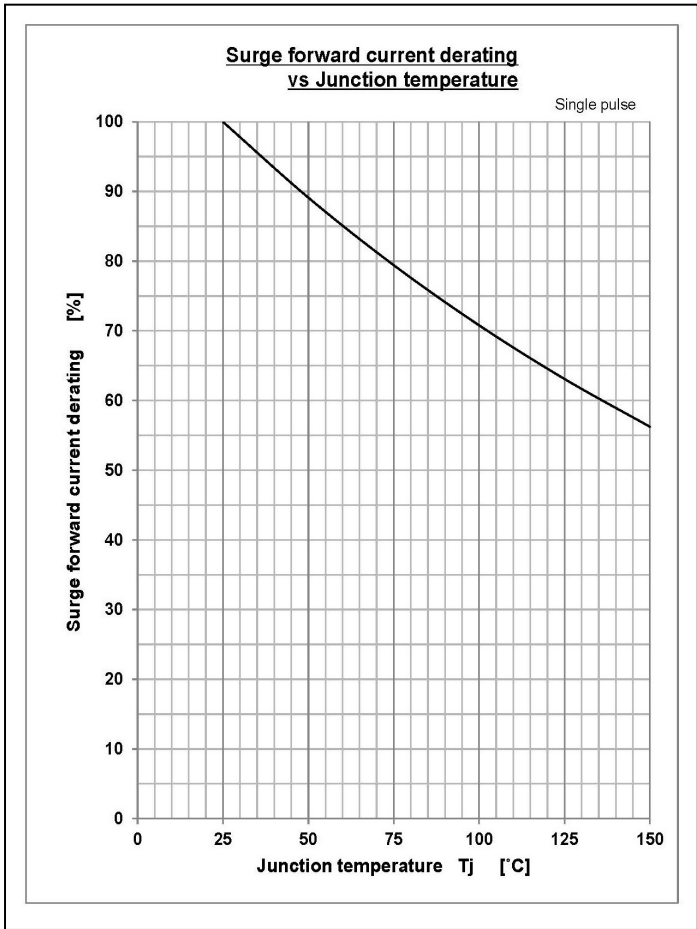


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R - load
Free in air

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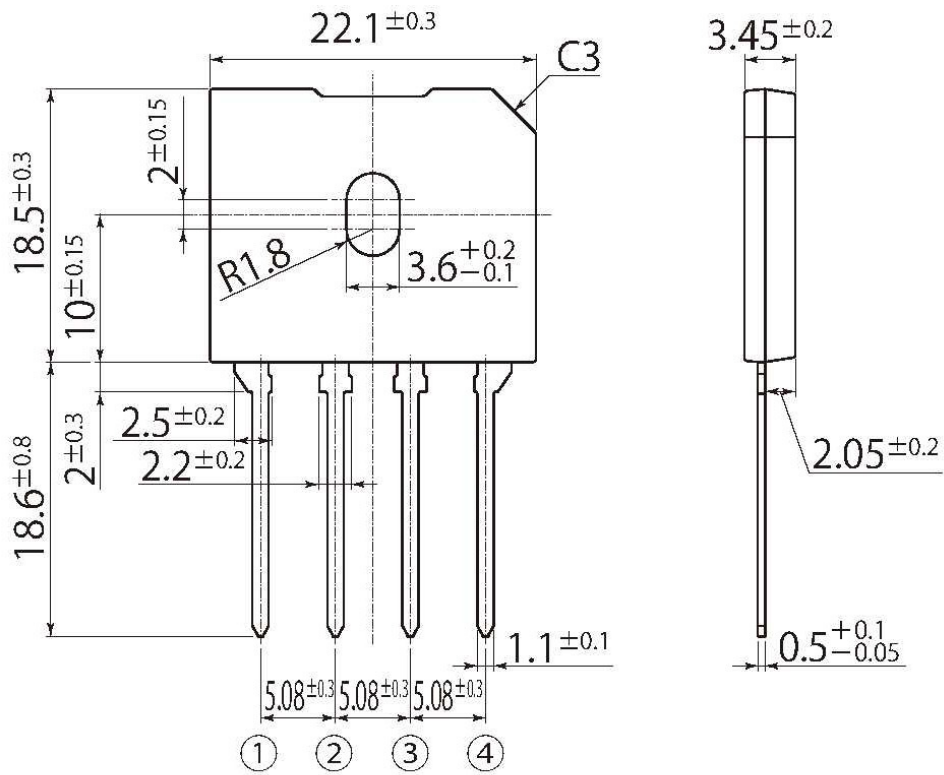


Outline Dimensions

unit:mm

D11

JEDEC Code	-
JEITA Code	-
House Name	D6K



Notes

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