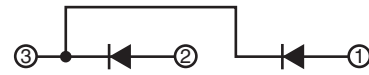


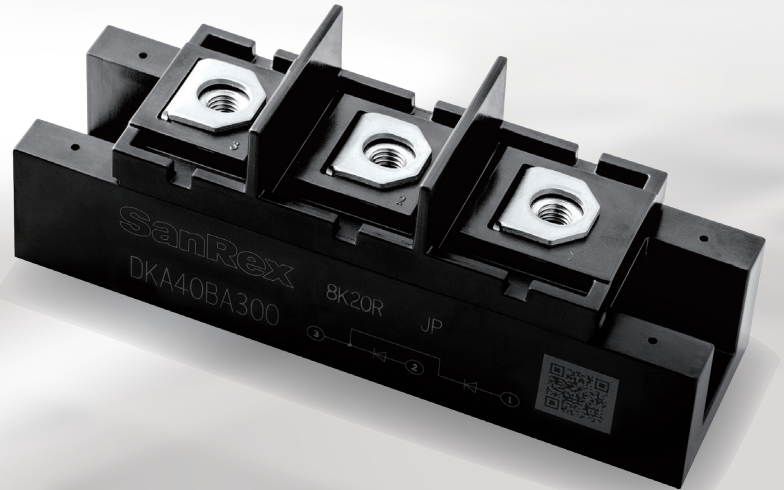
# High Voltage Resistance Blocking Diode

DKA40BA300 (20A/3000V)



## Applications

- ▶ String box for Solar (PV) power generation
- ▶ Reverse current prevention for DC line such as electric storage equipment



## Features

- DC1500V string  
Suitable for solar power system

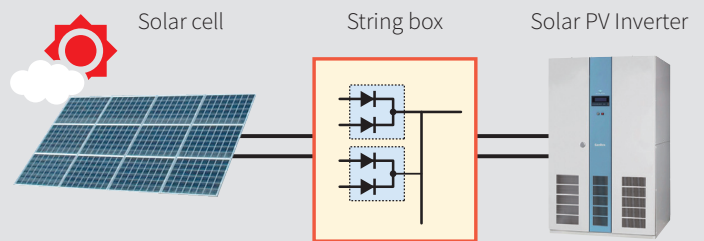
Efficiently protects solar cell modules and prevents power output

- VRDC 3000V (per chip)    Isolated package

- Achieving "Low loss" and "High heat dissipation" along with High Voltage Resistance thanks to our unique technology

- Advantages of high voltage string

Allows loss reduction on the entire power generation system and improves power generation efficiency. Less strings in parallel helps decreasing installation cost by reducing "wire length" and "circuits in junction box".



According to IEC60364-7-712 standard, maximum voltage must be twice the open circuit string voltage. ( $U_{OC}$  STC)

## Blocking Diode Line-up

String Voltage



For DC450V or less  
DG20AA80/120/160



For DC600V to 750V  
DKA60KB160



For DC1000V  
DKA40AA220

**Maximum Ratings**

T<sub>j</sub> = 25°C unless otherwise specified

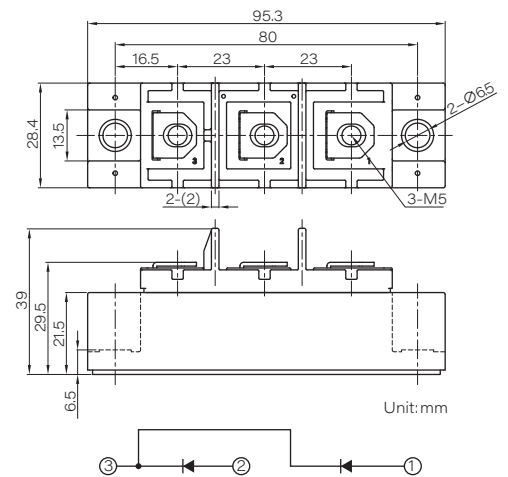
Item	Symbol	Unit	DKA40BA300
DC Reverse Voltage	V <sub>R(DC)</sub>	V	3000

Item	Symbol	Unit	Rating	Conditions
Average Forward Current	I <sub>F(AV)</sub>	A	20	DC T <sub>c</sub> =125°C
Surge Forward Current	I <sub>FSM</sub>	A	830 / 910	50/60Hz, Sin.Wave, Peak Value, Non-repetitive
I <sup>2</sup> t (for fusing)	I <sup>2</sup> t	A <sup>2</sup> s	3440	Value for one cycle of surge current
Isolation Voltage	V <sub>ISO</sub>	V	4500	Terminals to case, AC RMS 1minute
Operating Junction Temperature	T <sub>j</sub>	°C	-40 to +150	
Storage Temperature	T <sub>stg</sub>	°C	-40 to +125	
Mounting Torque	Mounting (M6)	N · m (kgf · cm)	4.7 (48)	Recommended value 2.5 to 3.9 (25 to 40)
	Terminal (M5)		2.7 (28)	Recommended value 1.5 to 2.5 (15 to 25)
Mass		g	150	Typical value

**Electrical Characteristics**

T<sub>j</sub> = 25°C unless otherwise specified

Item	Symbol	Unit	Ratings			Conditions
			Min.	Typ.	Max.	
Reverse Current	I <sub>R</sub>	mA			10	V <sub>R</sub> =3000V, T <sub>j</sub> =150°C
Forward Voltage	V <sub>F</sub>	V		0.94	1.15	I <sub>F</sub> =20A Inst. measurement
Thermal Resistance	R <sub>th(j-c)</sub>	°C/W			0.64	Junction to case (per Chip)
Interface Thermal Resistance	R <sub>th(c-f)</sub>		0.09	Case to Heat sink Thermal conductivity (Silicone grease) ≒ 9 × 10 <sup>-3</sup> [W/cm · °C]		



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- Appearance and specifications of products are subject to change without notice for improvement reasons.

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