

SHINDENGEN

Schottky Rectifiers (SBD)

Modules

D120SC4M

40V 120A

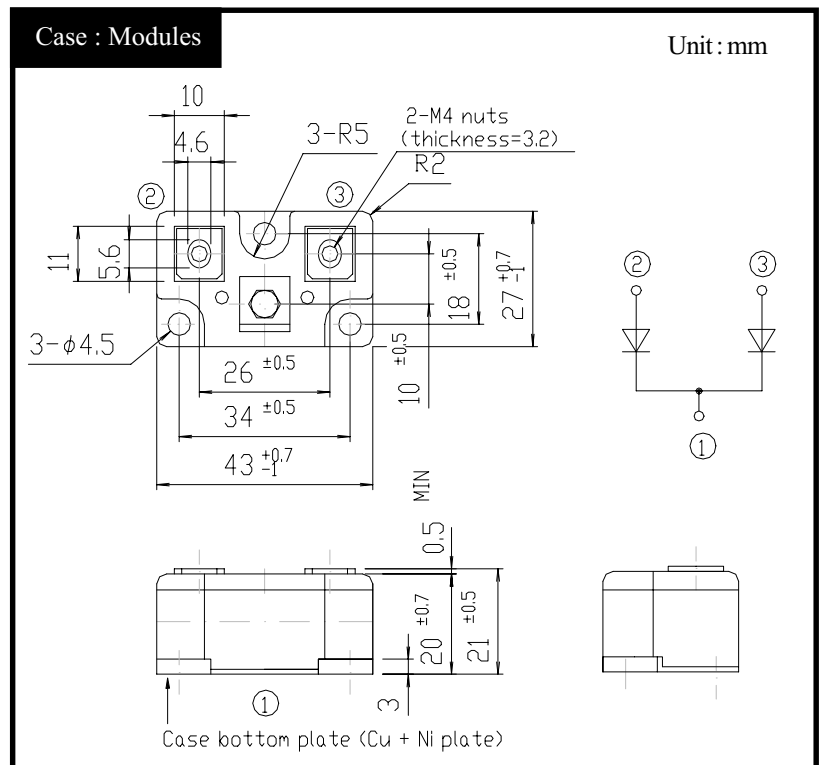
FEATURES

- High capacity modules
- Low VF
- Small θ_{jc}

APPLICATION

- Big switching power supply
- DC/DC converter
- Mainframe
- IC tester

OUTLINE DIMENSIONS



RATINGS

● Absolute Maximum Ratings (If not specified $T_c=25^\circ\text{C}$)

Item	Symbol	Conditions	Ratings	Units
Storage Temperature	Tstg		-40~125	$^\circ\text{C}$
Operating Junction Temperature	T_j		125	$^\circ\text{C}$
Maximum Reverse Voltage	V_{RM}		40	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 100ns, duty 1/100	48	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load, Rating for each arm $I_o/2$, $T_c=90^\circ\text{C}$	120	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1cycle peak value, Rating of per arm $T_j=125^\circ\text{C}$	800	A
Mounting Torque	TOR		1.7	$\text{N}\cdot\text{m}$

● Electrical Characteristics (If not specified $T_c=25^\circ\text{C}$)

Item	Symbol	Conditions	Ratings	Units
Forward Voltage	V_F	$I_F=60\text{A}$, Pulse measurement, Rating of per arm	Max.0.58	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement, Rating of per arm	Max.40	mA
Junction Capacitance	Cj	$f=1\text{MHz}$, $V_R=10\text{V}$, Rating of per arm	TYP 2.1	nF
Thermal Resistance	θ_{jc}	junction to case	Max.0.34	$^\circ\text{C}/\text{W}$
	θ_{cf}	case to heatsink, Mounting torque = $1.7\text{N}\cdot\text{m}$	Max.0.12	