

SCHOTTKY DIODE MODULE (NON-ISOLATED TYPE)

BKR400ABZ50

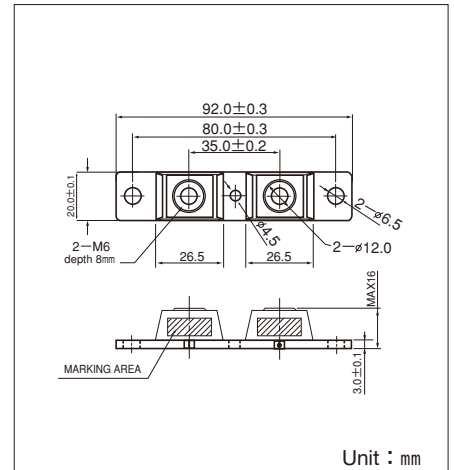
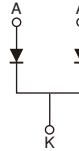
Power Schottky Diode Module **BKR400ABZ50** is designed for various rectifier circuits.

BKR400ABZ50 is suitable for high power application requiring low loss.

- Low V_{FM} 0.57V ($I_F=400A$)
- $I_{F(AV)}=200A$ (each device)
- $V_{RRM}=50V$
- High Surge Capability

(Applications)

Switching Power Supply, Power Supply for Metal Surface Treatment
Power Supply for Telecommunication



Maximum Ratings

($T_j=25^\circ\text{C}$ unless otherwise specified)

Symbol	Item	Ratings		Unit
		BKR400ABZ50		
V_{RRM}	Repetitive peak reverse Voltage	50		V

Symbol	Item		Condition	Ratings	Unit
$I_{F(AV)}$	Forward Current	Per module	D.C. $T_c=127^\circ\text{C}$	400	A
		Per leg		200	
I_{FMS}	Surge Forward Current		$1/2$ cycle, 60Hz, Peak value. non-repetitive	7600	A
			$1/2$ cycle, 50Hz, Peak value. non-repetitive	6920	
I^2t	I^2t (for fusing)		Value for one cycle of surge current	240000	A^2s
E_{AS}	Single Pulse Avalanche Energy (Per Leg)		$I_{AS}=60A$, $L=160\mu\text{H}$	320	mJ
T_j	Operating Junction Temperature			-40 to +150	$^\circ\text{C}$
T_{stg}	Storage Temperature			-40 to +125	$^\circ\text{C}$
	Mounting Torque	Mounting (M6)	Recommended value 25-40	48	$\text{kgf}\cdot\text{cm}$
			Recommended value 2.5-3.9	4.7	$\text{N}\cdot\text{m}$
		Mounting (M4)	Recommended value 10-14	15	$\text{kgf}\cdot\text{cm}$
			Recommended value 1.0-1.4	1.5	$\text{N}\cdot\text{m}$
		Terminal (M6)	Recommended value 25-40	48	$\text{kgf}\cdot\text{cm}$
			Recommended value 2.5-3.9	4.7	$\text{N}\cdot\text{m}$
	Mass	Typical value		78	g

Electrical Characteristics

Symbol	Item	Condition	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current	$T_j=125^\circ\text{C}$, $V_R=50V$, Pulse Width $<300\mu\text{s}$, Duty $<2\%$	2000	mA
V_{FM}	Forward Voltage Drop (Per leg)	$I_F=200A$ Inst. measurement	0.57	V
		$I_F=400A$ Inst. measurement	0.73	
		$I_F=200A$, $T_j=125^\circ\text{C}$ Inst. measurement	0.52	
		$I_F=400A$, $T_j=125^\circ\text{C}$ Inst. measurement	0.68	
$R_{th(j-c)}$	Thermal Resistance (Per leg)	Junction to case	0.20	$^\circ\text{C}/\text{W}$

