DIODE MODULE

DD(KD)30HB120/160

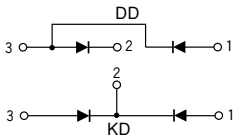
UL;E76102(M)

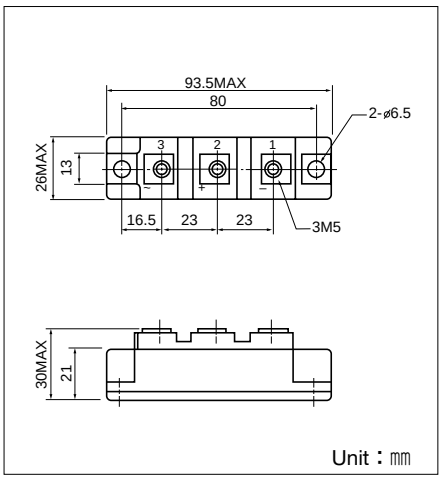
Power Diode Module **DD30HB** series are designed for various rectifier circuits. **DD30HB** has two diode chips connected in series and the mounting base is elctrically isolated from elements for simple heatsink construction. Wide voltage rating up to, 1,600V is avaiable for various input voltage.

- Isolated mounting base
- Two elements in a package for simple (single and three phase) bridge connections
- Highly reliable glass passivated chips
- High surge current capability

(Applications)

Various rectifiers, Battery chargers, DC motor drives





■Maximum Ratings

(Tj=25℃ unless otherwise specified)

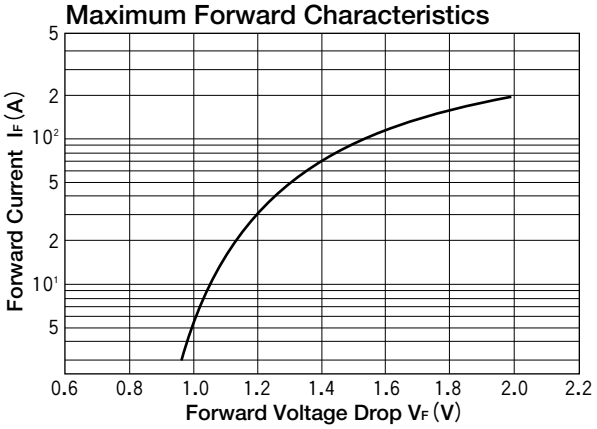
Symbol	Item	Ratings		Unit
		DD30HB120	DD30HB160	
V_{RRM}	Repetitive Peak Reverse Voltage	1200	1600	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	1350	1700	V

Symbol	Item		Conditions	Ratings	Unit
$I_{F(AV)}$	Average Forward Current		Single phase, half wave, 180° conduction, Tc : 115℃	30	A
$I_{F(RMS)}$	R.M.S. Forward Current		Single phase, half wave, 180° conduction, Tc : 115℃	47	A
I_{FSM}	Surge Forward Current		½ cycle, 50/60Hz, peak value, non-repetitive	550/600	A
I^2t	I^2t		Value for one cycle of surge current	1500	A^2S
Tj	Junction Temperature			−40 to +150	℃
Tstg	Storage Temperature			−40 to +125	℃
V_{ISO}	Isolation Breakdown Voltage (R.M.S.)		A.C.1minute	2500	V
	Mounting Torque	Mounting (M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48)	N·m (kgf·cm)
		Terminal (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	
	Mass			170	g

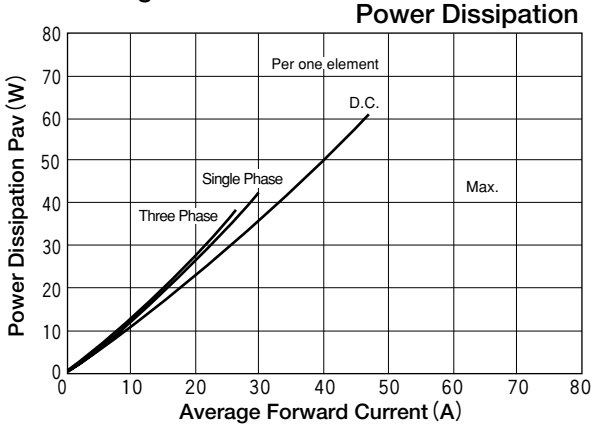
■Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current, max.	at V_{DRM}, single phase, half wave. Tj=150℃	10	mA
V_{FM}	Forward Voltage Drop, max.	Foward current 90A, Tj=25℃, Inst. measurement	1.50	V
Rth(j-c)	Thermal Impedance, max.	Junction to case	0.80	℃/W

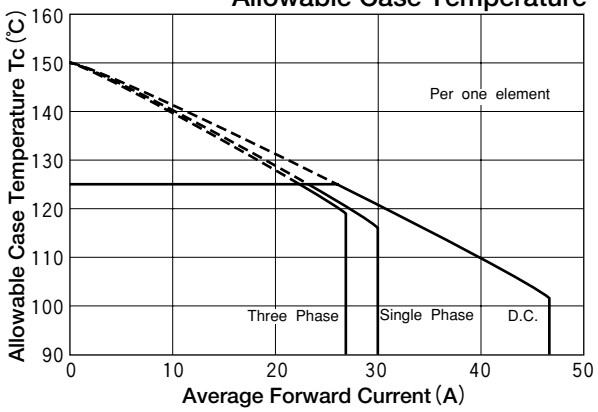
Maximum Forward Characteristics



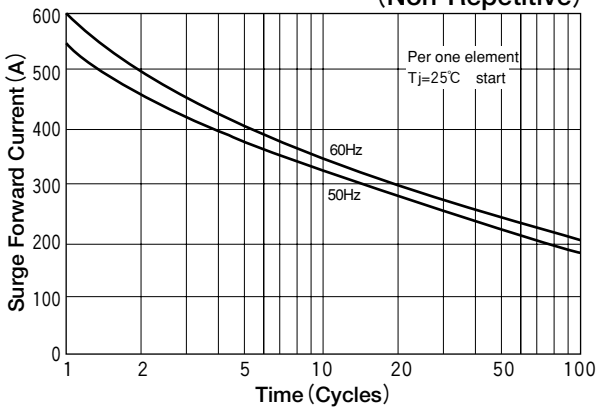
Average Forward Current vs. Power Dissipation



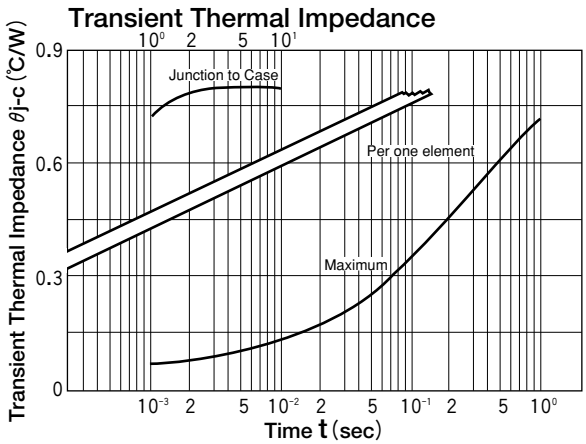
Average Forward Current vs. Allowable Case Temperature



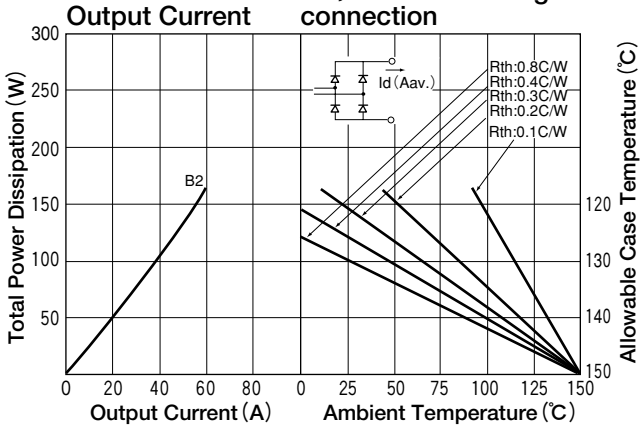
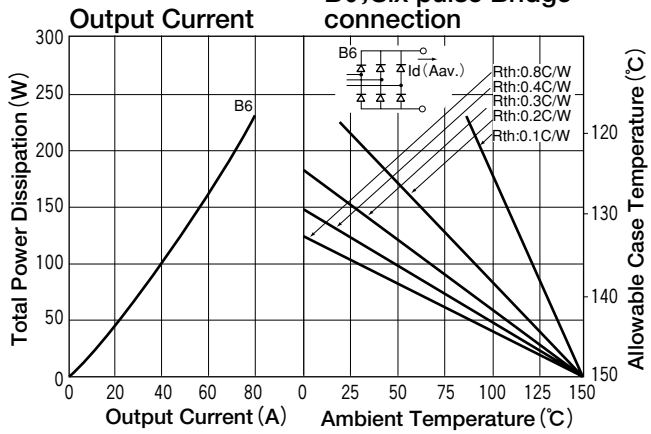
Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance



Output Current B2;Two Pluse Bridge connection



Output Current B6;Six pulse Bridge connection