Diode Module

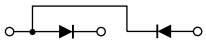
DD160KB80/160

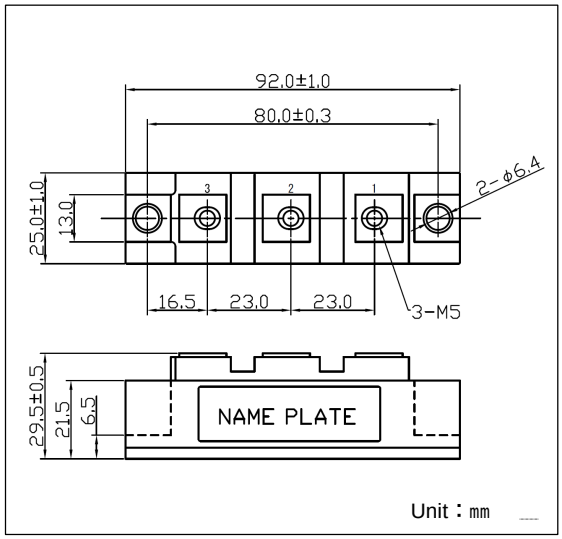
UL: E76102

《Features》
Power Diode Module DD160KB Series are designed for various rectifier circuits.
DD160KB has two diode chips connected in series and the mounting base is electrically isolated from elements for simple heatsink construction. Wide voltage rating up to, 1600V is available for various input voltages.

- 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)

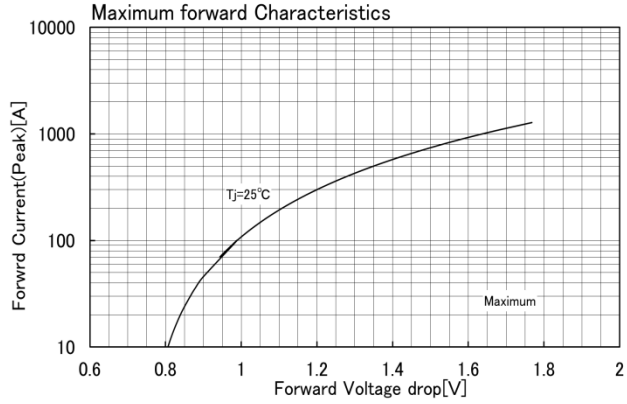
Item	Symbol	Unit	DD160KB80	DD160KB160
Repetitive Peak Reverse Voltage	V_{RRM}	V	800	1600
Non-Repetitive Peak Reverse Voltage	V_{RSM}	V	960	1700

Item		Symbol	Unit	Ratings	Conditions
Average Forward Current		$I_{F(AV)}$	A	160	Single phase half wave, 180° conduction Tc=90℃
R.M.S. Forward Current		$I_{F(RMS)}$	A	250	Single phase half wave, 180° conduction Tc=90℃
Surge Forward Current		I_{FSM}	A	3200	1/2cycle, 60Hz, Peak value, non-repetitive
I^2t		I^2t	A^2s	42600	Value for one cycle surge current
Operating Junction Temperature		T_j	℃	-40 to +150	
Storage Temperature		T_{stg}	℃	-40 to +125	
Isolation Breakdown Voltage		V_{ISO}	V	2500	A.C. 1minute
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	170	Typical value

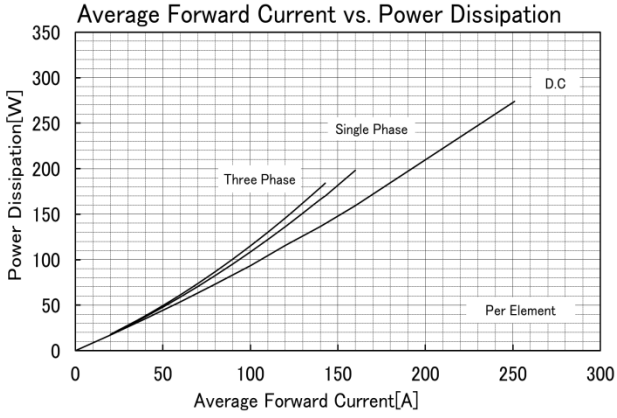
■ Electrical Characteristics (Tj=25℃ unless otherwise specified)

Item	Symbol	Unit	Ratings	Conditions
Repetitive Peak Reverse Current,max	I_{RRM}	mA	30	Tj=150℃ , VR=V_{RRM}
Forward Voltage Drop,max	V_{FM}	V	1.35	Forward current 500A , Inst.measurement
Thermal Resistance,max	$R_{th(j-c)}$	℃/W	0.3	Junction to case

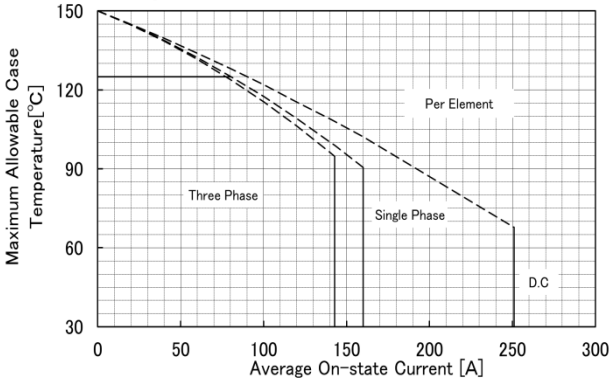
Maximum forward Characteristics



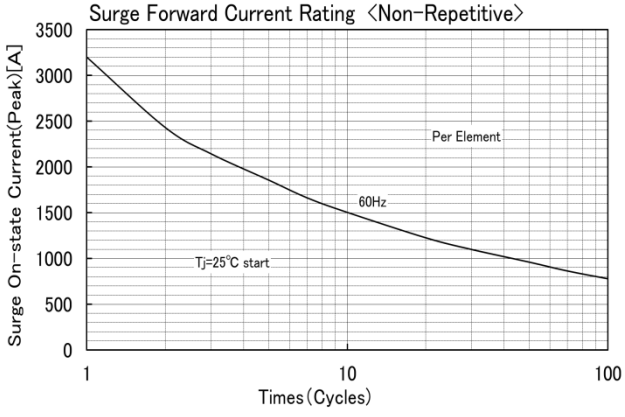
Average Forward Current vs. Power Dissipation



Average Forward Current vs. Maximum Allowable Case



Surge Forward Current Rating 〈Non-Repetitive〉



Transient Thermal Impedance(max)