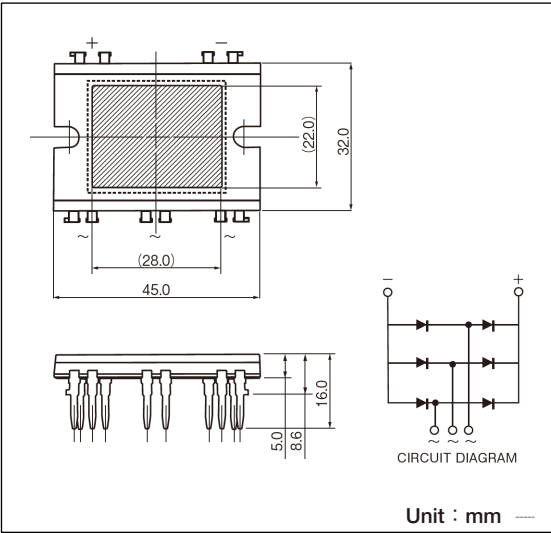


3-Phase Diode Bridge

DF100NB160

UL; E76102

- 《Features》
- Power cycle capability (Long-term reliability) is 3 times better than before thanks to the use of “Transfer Molding Package” (at ΔTj = 100℃)
 - Volume ratio of 1/10, footprint size 1/2 compare to our existing product
 - Reduced thermal resistance with unique internal structure and copper heat plate
 - Dual terminals for high capability and reliable solder contacts
- 《Applications》
- Packaged Air Conditioner / Motor Drives / Servo Controller/ Battery Charger / Power Supply



Maximum Ratings (Tj=25℃ unless otherwise specified)

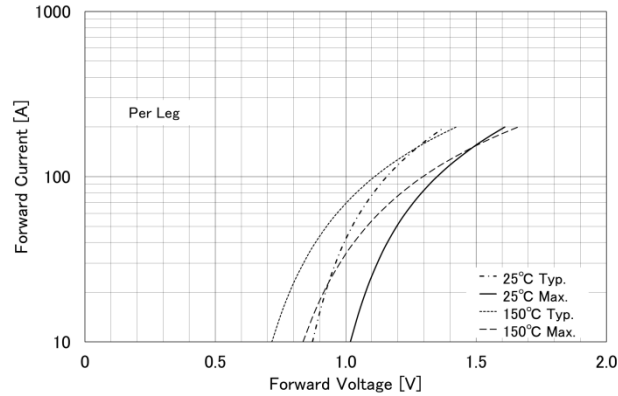
Item	Symbol	Unit	DF100NB160
Repetitive Peak Reverse Voltage	V_{RRM}	V	1600
Non-Repetitive Peak Reverse Voltage	V_{RSM}	V	1700

Item	Symbol	Unit	Ratings	Conditions
Average Output Current	I_D	A	100	Three Phase Full Wave, Tc=98℃
Surge Forward Current	I_{FSM}	A	910/1000	50/60Hz Sin.Wave, Peak Value, Non-Repetitive
I2t(for fusing)	I^2t	A ² s	4100	50/60Hz Sin.Wave
Isolation Voltage	V_{ISO}	V	2500	AC, RMS, 1min
Operating Junction Temperature	T_j	℃	-40~+150	
Storage Temperature	T_{stg}	℃	-40~+125	
Mounting Torque(M4)	—	N·m	1.5	Recommended Value 1.0~1.4
Weight	—	g	24	Typical Value

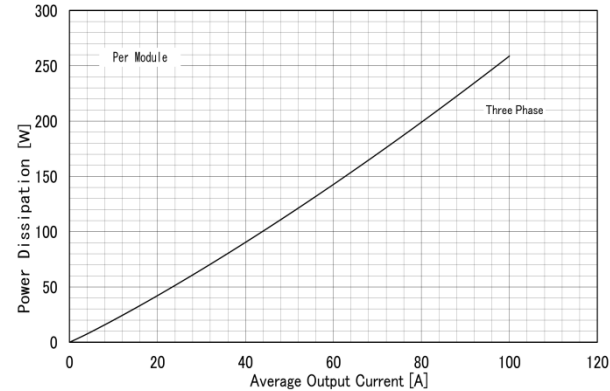
Electrical Characteristics (Tj=25℃ unless otherwise specified)

Item	Symbol	Unit	Ratings			Conditions
			Min.	Typ.	Max.	
Reverse Current	I_R	mA		4.5	8.0	$T_j=T_{jmax}, V_R=V_{RRM}$, Per Leg
Forward Voltage	V_F	V		1.16	1.35	$I_F=100A$, Per Leg
Threshold Voltage	$V_{(TO)}$	V		0.9	1.0	$T_j=25℃$
				0.7	0.9	$T_j=T_{jmax}$
Forward Slope Resistance	r_T	mΩ		2.8	3.2	$T_j=25℃$
				3.9	4.5	$T_j=T_{jmax}$
Thermal Resistance	$R_{th(j-c)}$	℃/W			0.20	Junction to Case (Per Module)
	$R_{th(c-f)}$	℃/W			0.14	Case to Fin (Per Module)
						Thermal conductivity (Si grease) =9 × 10 ⁻³ [W/cm·℃]

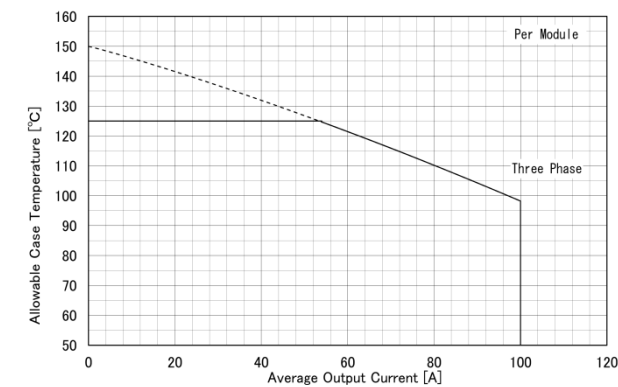
Forward Voltage Characteristics



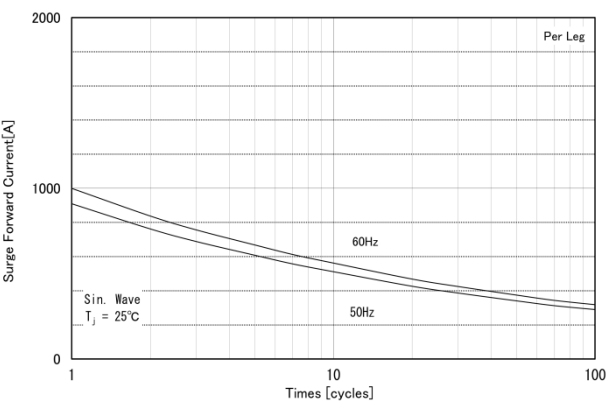
Average Output Current vs. Power Dissipation



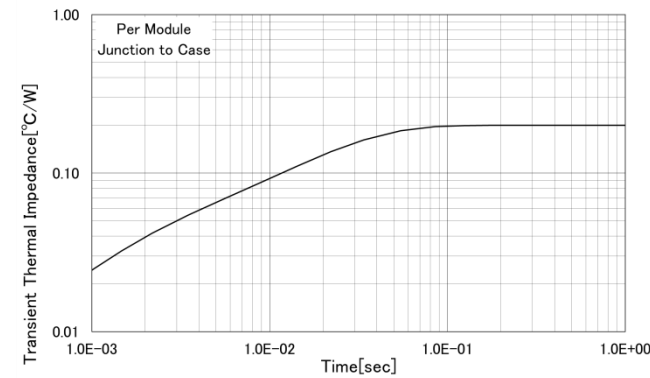
Average Output Current vs. Allowable Case Temperature



Surge Forward Current Rating《Non-Repetitive》



Transient Thermal Impedance



Mouser Electronics

Authorized Distributor

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