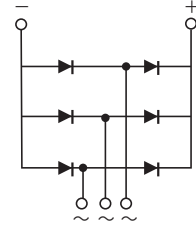


3-Phase Diode Bridge (DIP type)

- DF 60 NB160 (60A / 1600V)
- DF 75 NB160 (75A / 1600V)
- DF 100 NB160 (100A / 1600V)



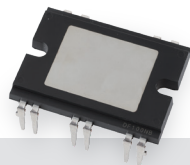
Applications

- ▶ Packaged Air Conditioner
- ▶ Motor Drives
- ▶ Servo Controller
- ▶ Battery Charger
- ▶ Power Supply



Features

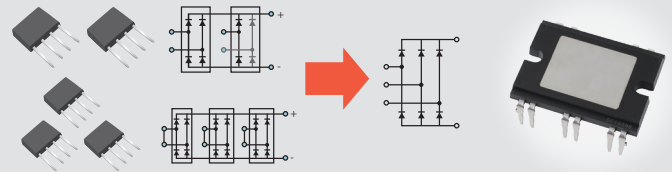
- Reduced thermal resistance with unique internal structure and copper heat plate



Volume ratio of 1/10

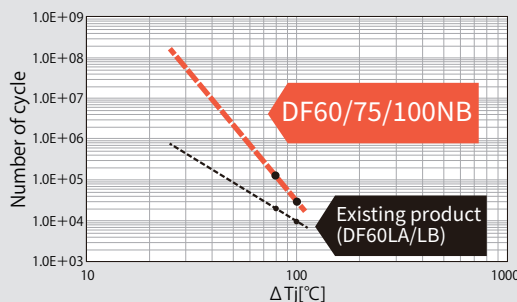


- Fewer components reduce assembly time and downsize overall circuit



- Power cycle capability (Long-term reliability) is 3 times better than before thanks to the use of "Transfer Molding Package"

(at $\Delta T_j = 100^\circ\text{C}$)



- Dual terminals for high capability and reliable solder contacts



- Part Number on both sides for easy identification even after board mounting



Maximum Ratings

T_j=25°C unless otherwise specified

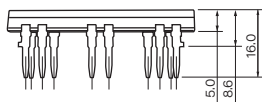
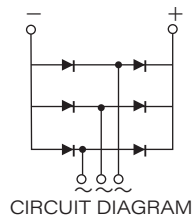
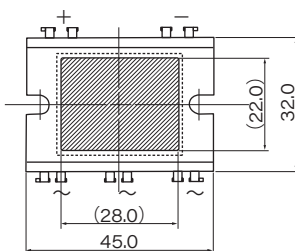
Item	Symbol	Unit	DF60NB160 / DF75NB160 / DF100NB160		
Repetitive Peak Reverse Voltage	V _{RRM}	V	1600		
Non-Repetitive Peak Reverse Voltage	V _{RSM}	V	1700		

Item	Symbol	Unit	Ratings			Conditions
			DF60NB	DF75NB	DF100NB	
Output Current (D.C.)	I _D	A	60	75	100	3-phase full wave DF60NB160...T _c =110°C DF75NB160...T _c =112°C DF100NB160...T _c =98°C
Surge Forward Current	I _{FSM}	A	730/800	910/1000	910/1000	50/60HZ sine wave, Non-repetitive 1/2cycle peak value
I ² t (for fusing)	I ² t	A ² s	2600	4100	4100	Value for one cycle of surge current
Operating Junction Temperature	T _j	°C	-40 to +150			
Storage Temperature	T _{stg}	°C	-40 to +125			
Isolation Voltage	V _{iso}	V	2500			Terminals to Case, AC RMS 1minute
Mounting Torque	M4	N · m	1.5			Recommended Torque : 1.0 to 1.4N · m
Mass		g	24			Typical Value

Electrical Characteristics

T_j=25°C unless otherwise specified

Item	Symbol	Unit	Ratings									Conditions		
			Min.			Typ.			Max.			DF60NB	DF75NB	DF100NB
			DF60NB	DF75NB	DF100NB	DF60NB	DF75NB	DF100NB	DF60NB	DF75NB	DF100NB			
Repetitive Peak Reverse Current	I _{RRM}	mA							8.00	8.00	8.00	T _j =150°C, V _R =1600V, V _R =V _{RRM}		
Forward Voltage Drop	V _{FM}	V				1.08	1.09	1.16	1.30	1.30	1.35	T _j =25°C Inst.measurement I _F =60A	T _j =25°C Inst.measurement I _F =75A	T _j =25°C Inst.measurement I _F =100A
Threshold Voltage	V _(TO)	V							0.91	0.80	0.90	T _j =150°C		
Slope Resistance	r _t	mΩ							4.90	5.00	4.50	T _j =150°C		
Thermal Resistance	R _{th(j-c)}	°C/W							0.25	0.20	0.20	Junction to Case (per Module)		
Interface Thermal Resistance	R _{th(c-f)}	°C/W							0.20	0.14	0.14	Case to Heat sink Thermal conductivity (Silicon grease) ≅ 9 × 10 ⁻³ [W/cm · °C]		



Unit : mm

Other Products

SIP ※	DF-NA series 20/30A	
h = 17mm package	DF-AC series 75/100A	DF-AE series 150/200A
h = 22mm package	DF-AA/BA/CA series 75/100/150/200A	DF-LA/LB series 60/75/100A

※Single Inline Package

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* Appearance and specifications of products are subject to change without notice for improvement reasons.

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