

6th Generation IGBT Modules (NX-Series)



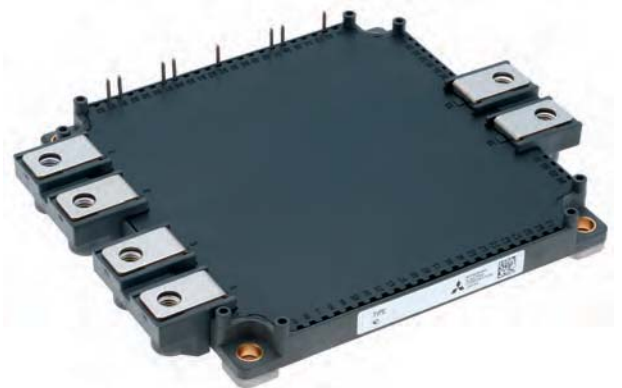
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Applications

- General Purpose Drives
- Photovoltaic Inverters
- UPS

Features

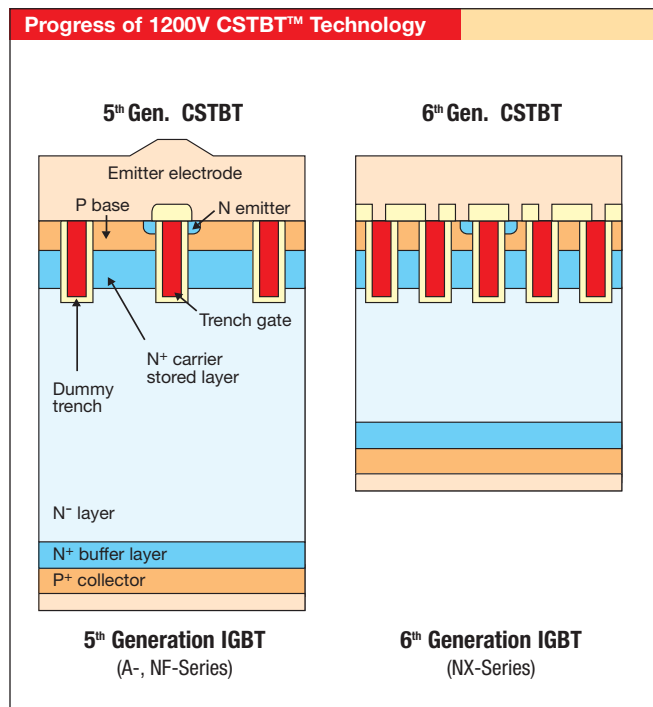
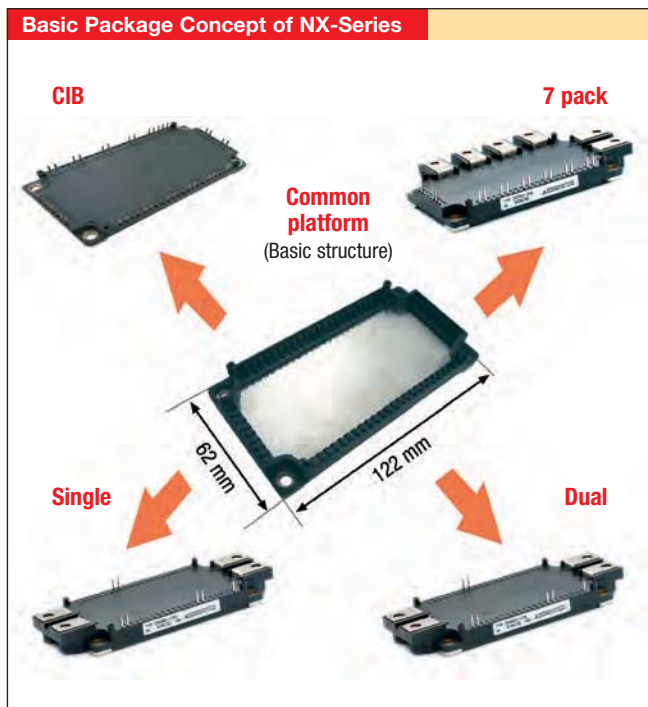
- 6th Generation IGBT with CSTBT™ Chip Technology
- For 1200V modules: $V_{CE(sat)}(Chip) = 1.7V(typ) @ T_j = 25^{\circ}C$; wide SOA @ $V_{CC} = 850V$
- For 1700V modules: $V_{CE(sat)}(Chip) = 2.1V(typ) @ T_j = 25^{\circ}C$; wide SOA @ $V_{CC} = 1200V$
- More than $10\mu s$ short circuit capability and excellent paralleling characteristics
- New Free Wheel Diode Chip with optimised trade-off between V_F and E_{rr}
- $T_{j(max)} = 175^{\circ}C$
- High flexibility by using one common platform design for single, dual, six- and seven-packs and CIB (converter-inverter-brake)
- Comprehensive line-up in 1200V, 1700V



Ihr Vertriebspartner:
HY-LINE[®]
 POWER COMPONENTS

Inselkammerstraße 10
 D-82008 Unterhaching
 Tel.: +49 (0)89 614503 10
 Fax: +49 (0)89 614503 20
 E-Mail: power@hy-line.de
 URL: www.hy-line.de

1.03 6th Generation IGBT Modules (NX-Series)



Line-up NX-Series

Symbol	Circuit Diagram	V _{CES} (V)	I _c (A)				
			35	50	75	100	150
M (CIB)		1200	CM35MXA-24S	CM50MXA-24S	CM75MXA-24S	CM100MXA-24S	
		1700					
R (7in1)		1200			CM75RX-24S	CM100RX-24S	CM150RX-24S
		1700		CM50RX-34SA	CM75RX-34SA		
T (6in1)		1200			CM75TX-24S	CM100TX-24S	CM150TX-24S
		1700		CM50TX-34SA	CM75TX-34SA	CM100TX-34SA	

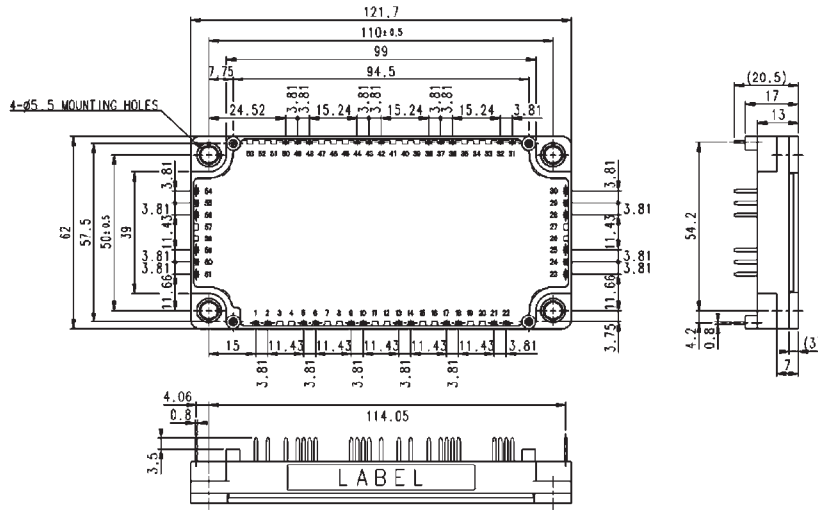
Symbol	Circuit Diagram	V _{CES} (V)	I _c (A)					
			150	200	300	450	600	1000
D (2in1)		1200	CM150DX-24S	CM200DX-24S	CM300DX-24S	CM450DX-24S	CM600DXL-24S*	CM1000DXL-24S*
		1700	CM150DX-34SA	CM200DX-34SA	CM300DX-34SA	CM450DXL-34SA*		

under development

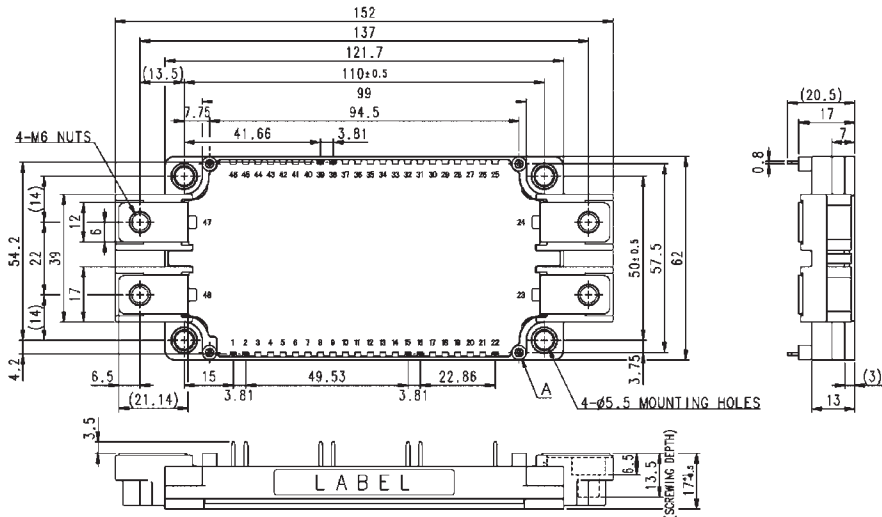
*Large package type (122mm x 122mm)

1.03 6th Generation IGBT Modules (NX-Series)

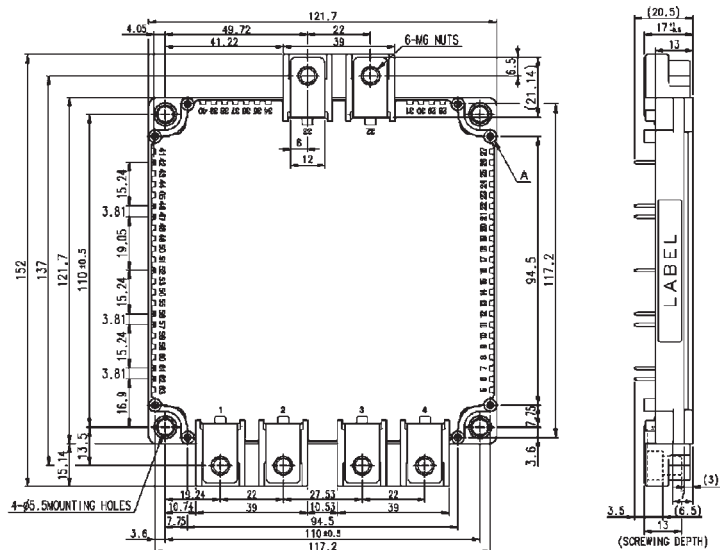
Package NX3



Package NX4



Package NX5



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New Mega Power Dual IGBT Modules (with 6th Gen. IGBT Chips)



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Application

High Power Energy Conversion

Features

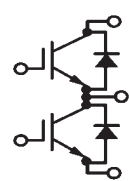
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- For 1700V modules: $V_{CE(sat)}(Chip) = 2.1V(typ) @ T_j = 25^\circ C$; wide SOA @ $V_{CC} = 1200V$
- $T_{j(max)} = 175^\circ C$
- New solderless lightweight Al-baseplate → high ΔT_c temperature cycling capability
- Wide internal chip layout → low $R_{th(j-f)}$
- Minimized internal package inductance $L_{PN} = 5.25nH$ (large package)
- AC and DC main terminals separated → easy DC-bus design
- Multi-hole main terminals → low contact resistance and reliable long-term electrical connection
- Integrated NTC for T_c -sensing
- Auxiliary C-terminals available for P- and N-side IGBT



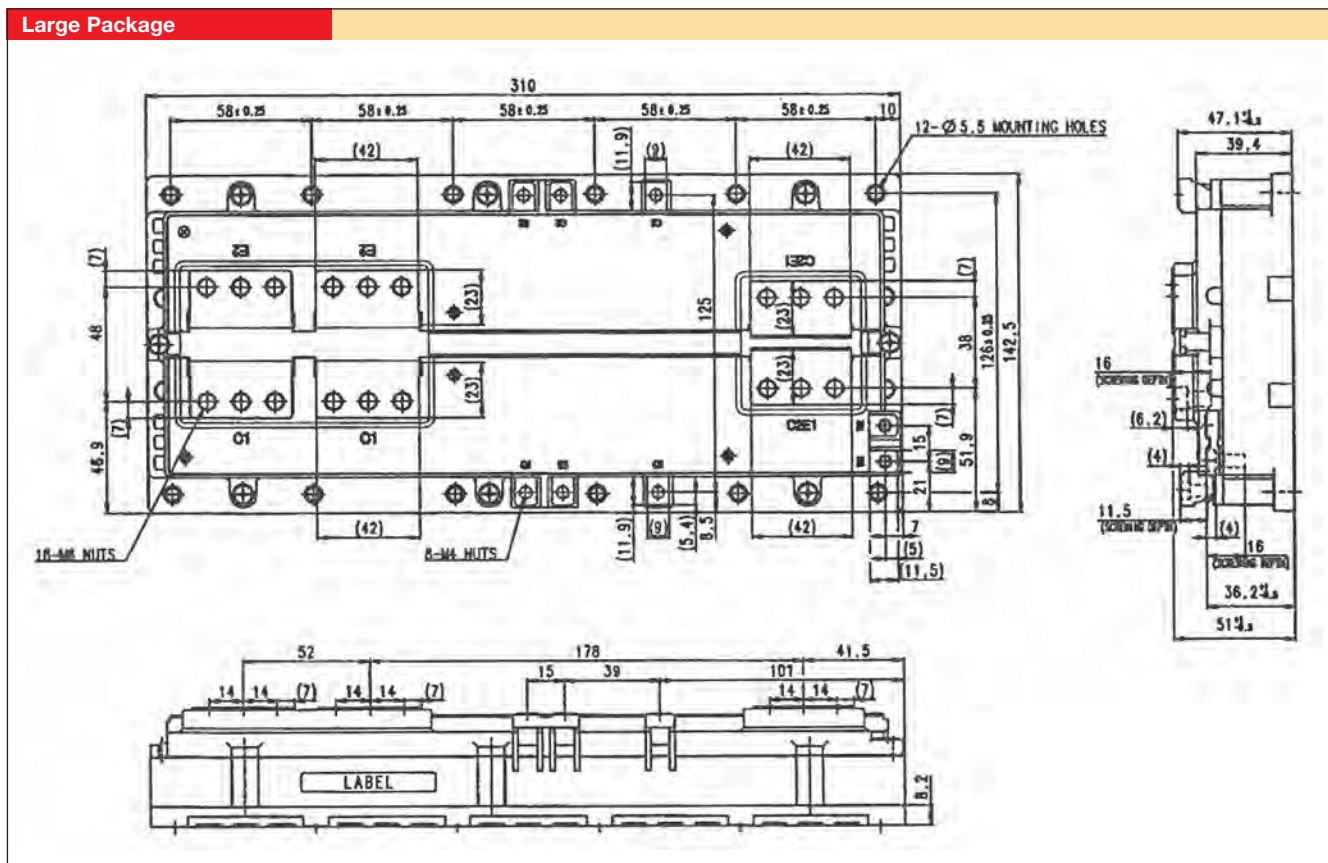
For
Mega Power Dual
IGBT Modules (NF-Series)
please refer to
page 19/20

1.04 New Mega Power Dual IGBT Modules (with 6th Gen. IGBT Chips)

Line-up

Symbol	Package	Size V_{CES} (V)	Small Package (L 194 x W 142 x H 50mm)		Large Package (L 310 x W 142 x H 50mm)	
			I_c (A)			
			1100	1500	1800	2500
D		1200		CM1500DY-24S		CM2500DY-24S
		1700	CM1100DY-34S		CM1800DY-34S	

under development



Dimensions in mm

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