- High Power Density
- High mechanical robustness
- Compact design
- Isolated heatsink using DBC technology
- Very low forward voltage drops
- Fast & soft reverse recovery anti-parallel FWD

- Active Rectifier
- Air Conditioning
- Motor Drives

(@ T_C = 25℃ unless otherwise specified)

Collector-emitter voltage	T_{vj} = 25℃	V_{CES}	1200	V
Gate-emitter peak voltage		V_{GES}	±20	V
Continuous collector current	T_C = 100℃	I_C	100	A

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(@ T_C = 25℃ unless otherwise specified)

Collector-emitter saturation voltage	I_C = 100A, V_{GE} = 15V	T_{vj} = 25℃	$V_{CE(sat)}$		1.90	2.30	V
		T_{vj} = 125℃			2.25		
		T_{vj} = 150℃			2.35		
Gate threshold voltage	V_{CE}=V_{GE}, I_C=4.0mA		$V_{GE(th)}$	5.4	6.0	6.	

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(@ T_C = 25℃ unless otherwise specified)

Repetitive peak reverse voltage	T_{vj} = 25℃	V_{RRM}	1200	V
Continuous DC forward current		I_F	50	A
Repetitive peak forward current	t_P = 1ms			

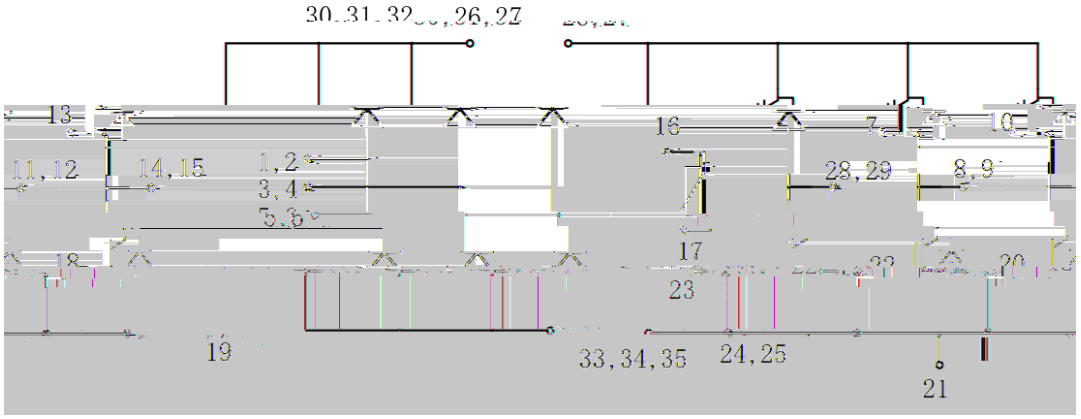
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(@ T_C = 25℃ unless otherwise specified)

Rated resistance	T_C=25	R_{25}		5		KΩ

Deviation of R100

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Unit of measurement: mm

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Fig 1. IGBT Output Characteristics
Inverter (typical) VGE=15 V

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Fig 5. IGBT Switching Loss vs. Rg, Inverter (typical Ic=100 A, VCE=600 V, VGE=±15 V

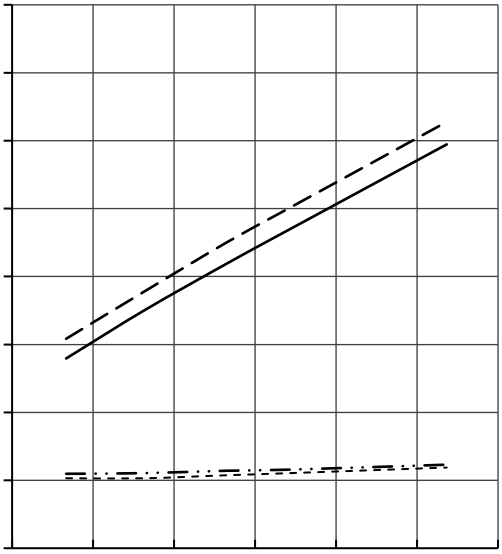


Fig 6. IGBT Transient Thermal Impedance Inverter

Fig 7. Reverse bias safe operating area IGBT, Inverter (RBSOA)

Fig 8. FRED Forward Characteristics, Inverter (typical)

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Fig 9. FRED Switching Loss vs. Ic,
Inverter (typical)
Rg=2 Ω, VCE=600 V

Fig 10. FRED Switching Loss vs. Rg,
Inverter (typical)
Ic=100 A, VCE=600 V

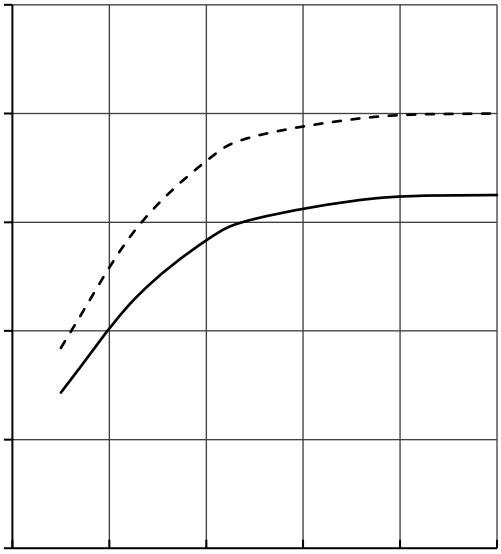


Fig 11. FRED Transient Thermal Impedance
Inverter

Fig 12. Diode Rectifier Forward Characteristics

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Fig 13. Diode Rectifier Transient Thermal Impedance

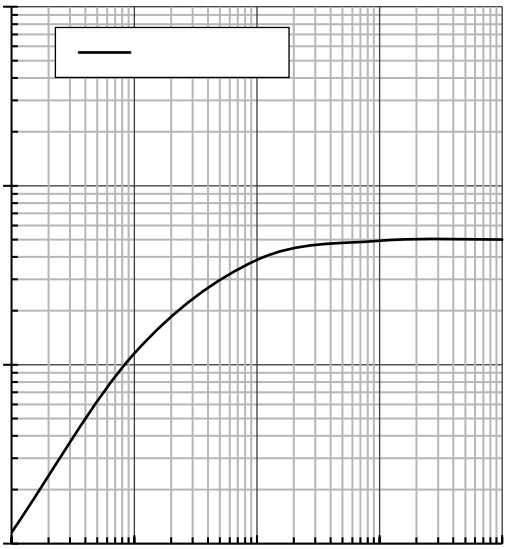


Fig 14. IGBT Output Characteristics
Brake-Chopper (typical) VGE=15 V

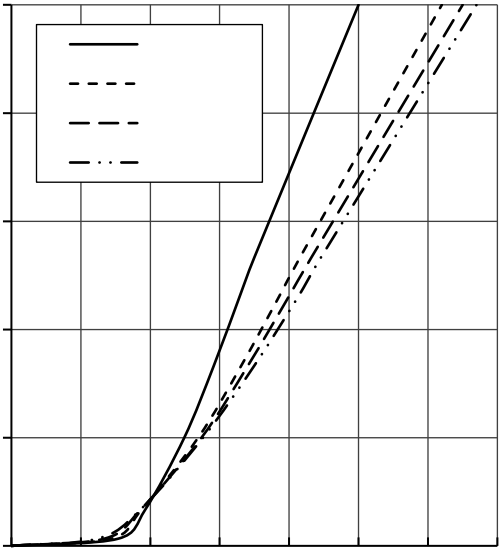


Fig 15. FRED Forward Characteristics,
Brake-Chopper (typical)

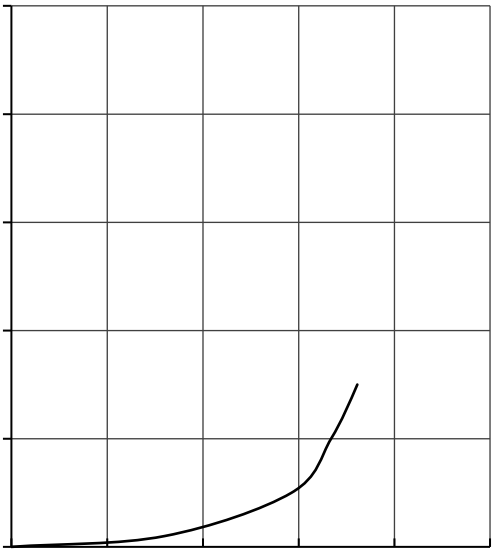


Fig 16. Temperature characteristics,
NTC thermistor (typical)

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