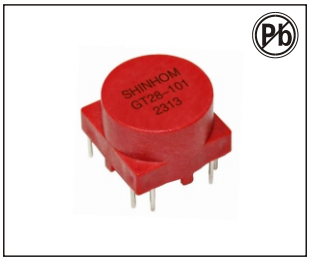
GATE DRIVER TRANSFORMER FOR IGBT

GT28 SERIES



FEATURES:

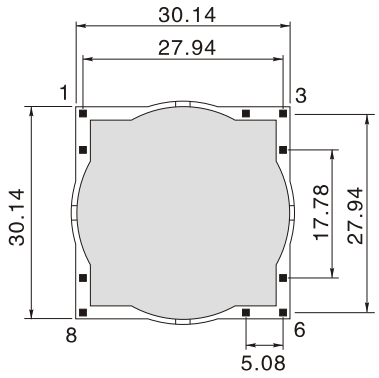
- Low coupling capacitance, high anti-interference capability
- Low leakage, excellent output pulse waveform
- No switch delay, high instantaneous transmission power
- High electrical strength, safe and reliable
- Fully enclosed, good mechanical and corrosion resistance
- Compact size, DIP installation
- Size 30.14x27.94x25mm
- Conforms to UL91-V0

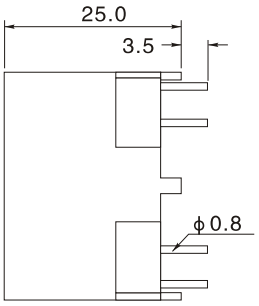
ELECTRICAL CHARACTERISTICS@25℃

Part Number	Turns ratio	Pri Inductance (mH) 1.0KHz,0.3V	Pri impulse voltage (V)	Sec impulse voltage (V)	Pulse width (uS)	Et Constant (Vus) Min	Hi-Pot (kVrms) 50Hz,1min
GT28-101	1:1	2~5	15	13	66.6	1000	6
GT28-201	2:1	2~5	20	9	50	1000	6
GT28-301	3:1	2~5	30	9	33.3	1000	6
GT28-111	1:1:1	2~5	15	13	66.6	1000	6
GT28-211	2:1:1	2~5	20	9	50	1000	6
GT28-311	3:1:1	2~5	30	9	33.3	1000	6

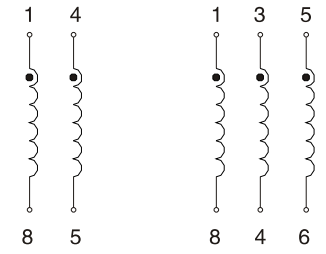
TECHNICAL INFORMATION & WINDING

Dimensions(mm)





Winding



GT28-101
GT28-201
GT28-301

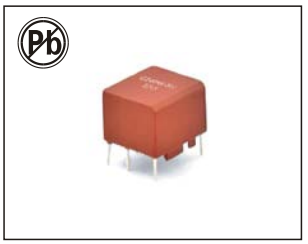
GT28-111
GT28-211
GT28-311

NOTES

- Electrical specification at 25℃
- Ambient temperature ranges from -40℃ to +85℃
- Insulation heat resistance Class F(155℃)
- Insulation resistance 1000MΩ Min
- Operating frequency 100Hz~50KHz

GATE DRIVE TRANSFORMERS FOR IGBT

GT4099 Series



FEATURES:

- Low coupling capacitance
- High insulation strength (reinforced insulation)
- Very high corona extinction voltage
- Compact designs in THT and SMT casings

DESCRIPTION:

In modern variable–frequency drives (VFD) IGBT are used in the inverter stage for frequency conversion. The corresponding Gate Driver Circuit needs to supply the necessary power for switching. In medium to high power applications DC/DC converters are usually used for this purpose.

Gate Drive Transformers for IGBT are the key element in these converters maintaining the safe galvanic separation between the intermediate circuit and the low voltage control side.

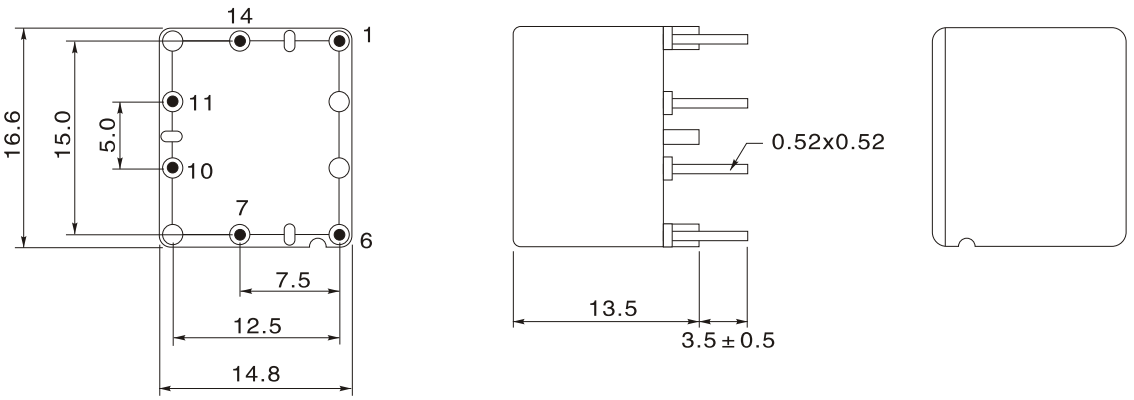
By using toroidal cores made from nanocrystalline it is possible to transmit the required switching power in extremely compact casings saving valuable PCB space. Advanced insulation and winding concepts ensure highest corona extinction voltages as well as low coupling capacitances.

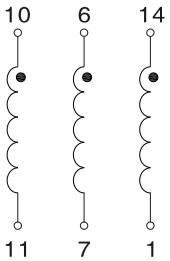
A large portfolio for typical working voltages between 500 V and 1200 V is available.The transformers feature different transmission ratios and voltage–time areas for demanding applications.

STANDARD SPECIFICATION:

Part Number	Turns ratio	Operating frequency (KHz)	Transmittable power (W)	Pri. Inductance (mH)Min @10KHz	Pri. Leakage inductance (Short Sec.) (uH)Typ. @100KHz	Capacitance Pri to Sec (pF)Typ.	Insulation voltage Pri. to Sec. (V)	Hi–Pot (kV)
GT4099–011	1:1:1	100	8	0.95	2.4	2.5	500	4.5

PHYSICAL CHARACTERISTICS TECHNICAL INFORMATION:





Notes:

Electrical specification at 25℃

Operating temperature range: –40℃ to +105℃

Storage temperature range: –40℃ to +105℃

GATE DRIVE TRANSFORMERS FOR IGBT

GT4185 Series

FEATURES:

- Low coupling capacitance
- High insulation strength (reinforced insulation)
- Very high corona extinction voltage
- Compact designs in THT and SMT casings

DESCRIPTION:

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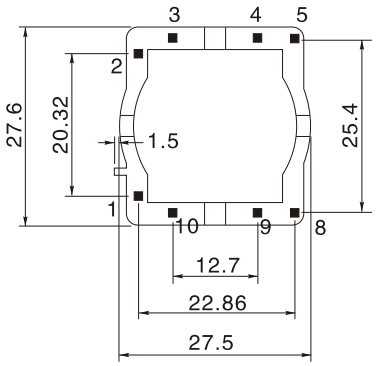
STANDARD SPECIFICATION:

Part Number	Turns ratio	Operating frequency (KHz)	Transmittable power (W)	Pri. Inductance (mH)Min @10KHz	Pri. Leakage inductance (Short Sec.) (uH)Typ. @100KHz	Capacitance Pri to Sec (pF)Typ.	Insulation voltage Pri. to Sec. (V)	Hi–Pot (kV)
GT4185–046	2:1	20	20	22	4	40	1200	4.5

PHYSICAL CHARACTERISTICS



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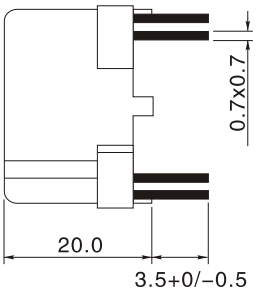
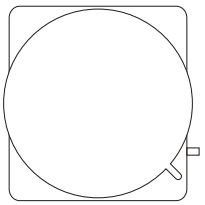
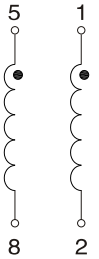






Notes:

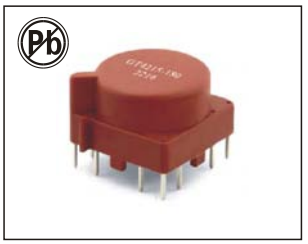
Electrical specification at 25℃

Operating temperature range: –40℃ to +105℃

Storage temperature range: –40℃ to +105℃

GATE DRIVE TRANSFORMERS FOR IGBT

GT4215 Series



FEATURES:

- Low coupling capacitance
- High insulation strength (reinforced insulation)
- Very high corona extinction voltage
- Compact designs in THT and SMT casings

DESCRIPTION:

In modern variable–frequency drives (VFD) IGBT are used in the inverter stage for frequency conversion. The corresponding Gate Driver Circuit needs to supply the necessary power for switching. In medium to high power applications DC/DC converters are usually used for this purpose.

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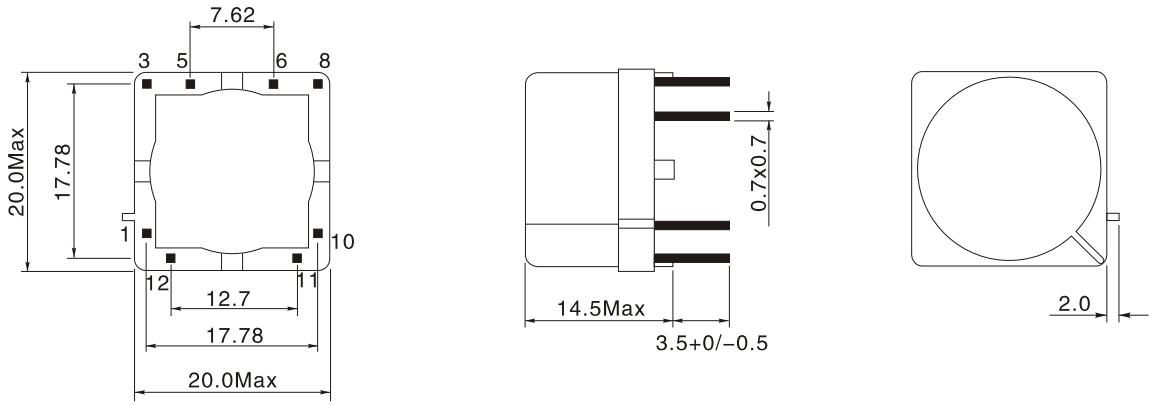
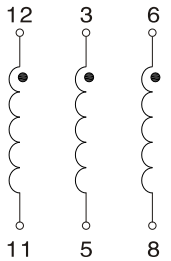
A large portfolio for typical working voltages between 500 V and 1200 V is available.The transformers feature different transmission ratios and voltage–time areas for demanding applications.

STANDARD SPECIFICATION:

Part Number	Turns ratio	Operating frequency (KHz)	Transmittable power (W)	Pri. Inductance (mH)Min @10KHz	Pri. Leakage inductance (Short Sec.) (uH)Typ. @100KHz	Capacitance Pri to Sec (pF)Typ.	Insulation voltage Pri. to Sec. (V)	Hi–Pot (kV)
GT4215–180	1:1:1	60	10	2.98	0.5	20	600	6.75

PHYSICAL CHARACTERISTICS TECHNICAL INFORMATION:





Notes:

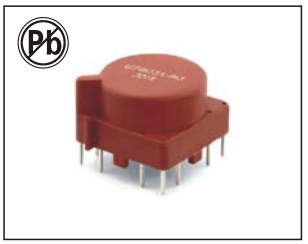
Electrical specification at 25℃

Operating temperature range: –40℃ to +105℃

Storage temperature range: –40℃ to +105℃

GATE DRIVE TRANSFORMERS FOR IGBT

GT4615 Series



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- Very high corona extinction voltage
- Compact designs in THT and SMT casings

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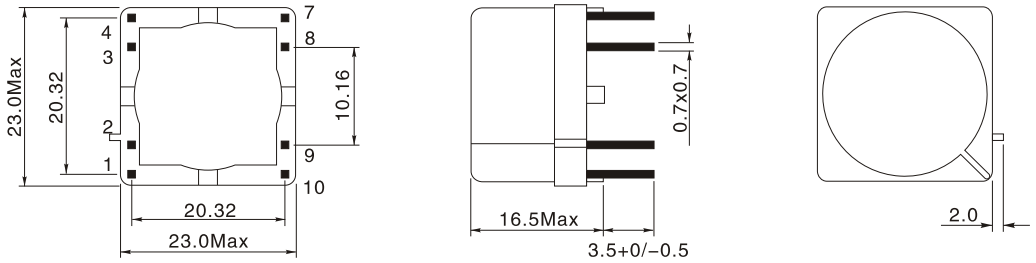
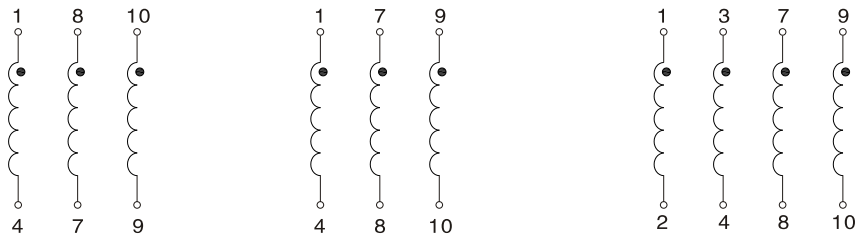
STANDARD SPECIFICATION:

Part Number	Turns ratio	Operating frequency (KHz)	Transmittable power (W)	Pri. Inductance (mH)Min @10KHz	Pri. Leakage inductance (Short Sec.) (uH)Typ. @100KHz	Capacitance Pri to Sec (pF)Typ.	Insulation voltage Pri. to Sec. (V)	Hi–Pot (kV)
GT4615A–065	2.9:1:1	100	42	14.5	9	10	1200	2.2
GT4615A–070	1:1:1.11:1.11	90	8	0.8	13	5	900	5
GT4615B–047	1:1:1	100	10	3	0.25	25	848	5
GT4615C–067	1:1:1	20	10	14.4	1.0	50	600	6.75

PHYSICAL CHARACTERISTICS TECHNICAL INFORMATION:





GT4615B–047

GT4615A–065
GT4615C–067

GT4615A–070

Notes:
Electrical specification at 25℃
Operating temperature range: –40℃ to +105℃
Storage temperature range: –40℃ to +105℃

GATE DRIVE TRANSFORMERS FOR IGBT

GT5032 Series

FEATURES:

- Low coupling capacitance
- High insulation strength (reinforced insulation)
- Very high corona extinction voltage
- Compact designs in THT and SMT casings

DESCRIPTION:

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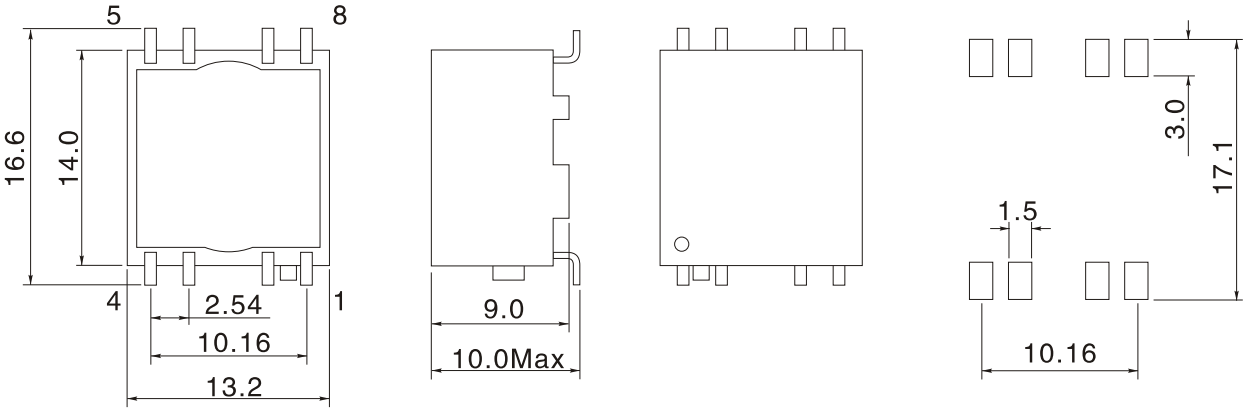
STANDARD SPECIFICATION:

Part Number	Turns ratio	Operating frequency (KHz)	Transmittable power (W)	Pri. Inductance (mH)Min @10KHz	Pri. Leakage inductance (Short Sec.) (uH)Typ. @100KHz	Capacitance Pri to Sec (pF)Typ.	Insulation voltage Pri. to Sec. (V)	Hi–Pot (kV)
GT5032–112	1:1:1	80	5	0.7	2.8	3.8	300	5.0

PHYSICAL CHARACTERISTICS



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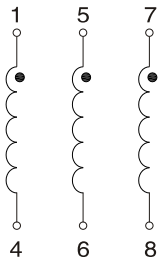


Notes:

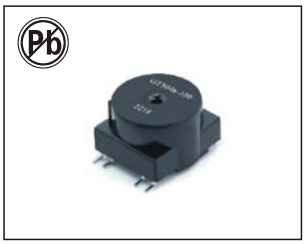
Electrical specification at 25℃

Operating temperature range: –40℃ to +105℃

Storage temperature range: –40℃ to +105℃

GATE DRIVE TRANSFORMERS FOR IGBT

GT5046 Series



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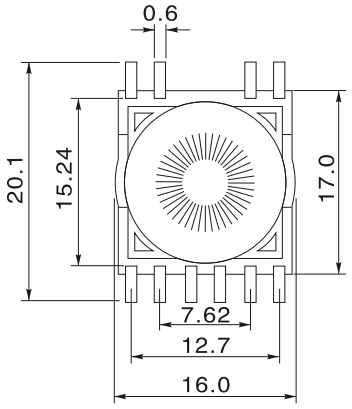
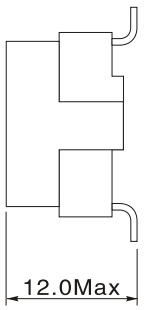
GT5046–100	1:1.2:1.2	100	3	1.4	0.3	12	848	1.8
GT5046–007	1:1:1	100	6.5	1.4	0.3	13	848	4.5
GT5046–008	1:1:1:1	100	4.5	2.32	6.7	9	848	4.5

PHYSICAL CHARACTERISTICS





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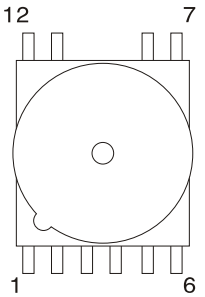
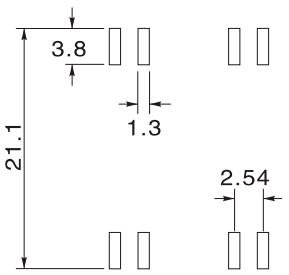
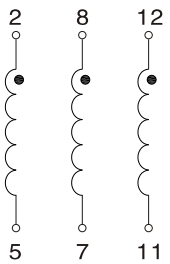
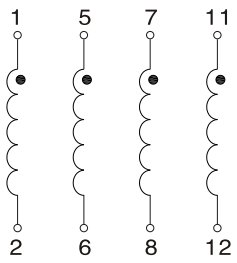






GT5046–100
GT5046–007



GT5046–008

Notes:
Electrical specification at 25℃
Operating temperature range: –40℃ to +105℃
Storage temperature range: –40℃ to +105℃