

Gate Drive Transformer

For High-Speed SiC-MOSFET and IGBT

(EP7 small SMD package)

- Up to 6W output power
- Input voltage 9V to 18V (UT38B61S~64S), 18 to 36V (UT38B65S~66S)
- Flyback switching frequency : 350kHz
- Dielectric insulation up to 4KVac
- Low Interwinding Capacitance and High Common-Mode Transient Immunity (CMTI)
- Basic Insulation for a working voltage 568Vrms / 800Vpk , Compliance with IEC62368-1/IEC61558-2-16
- Design for Ti's LM5180 and ADI's LT8302 IC chipset applications.
- Common control voltage for SiC MOSFETs
- Operating Temperature: -40°C to +130°C

ELECTRICAL SPECIFICATIONS @25°C

Model No.	Inductance at 0 Adc ¹ ±10% (uH)	DCR max (mOhms)			Leakage Inductance ² max (nH)	Interwinding Capacitance ³ Typ.(pF)	Turns ratio	I _{SAT} ⁴ (A)	Output
		Pri	Sec1	Sec2			Pri:Sec1:Sec2		
UT38B61S	18	100	440	--	500	6.8	1:2	1.95	19 V/0.16A
UT38B62S	18	100	290	100	600	7	2.25:3.5:1	1.6	15V/0.16A -4V/0.16A
UT38B63S	6	70	315	--	550	6.8	1:2	6.2	19V/0.32A
UT38B64S	7	55	230	85	400	7.5	2.25:3.5:1	5.0	15V/0.32A -4V/0.32A
UT38B65S	27	280	410	--	700	8.2	1:1.2	2.0	19V/0.26A
UT38B66S	27	180	275	105	600	7	3.5:3.5:1	1.5	15V/0.26A -4V/0.26A

Notes:

1. Inductance is for the primary, measured at 100kHz, 0.1 Vrms, 0 Adc.
2. Leakage inductance is for primary winding with the secondary windings shorted, measured at 100kHz, 0.1 Vrms .
3. Interwinding Capacitance is measured at 100kHz, 0.1 Vrms,
4. DC current applied to the primary at 25°C that causes an inductance drop of <20% from its value without current.

For RoHS compliant products:

- a.) Ordering code (Manufacturer Part Number): EX. TG-UT38B61S
- b.) Solder: Sn/Ag/Cu
- c.) Date Code suffix to "G" .

For RoHS and AEC-Q200 compliant products (To be tested):

- a.) Ordering code (Manufacturer Part Number): EX. TG-UT38B61S-Q
- b.) Date Code suffix to "GQ"

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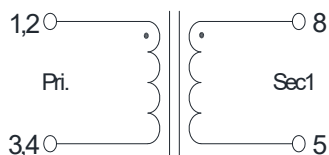
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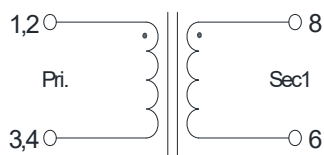
(EP7 small SMD package)

MECHANICAL & SCHEMATIC:

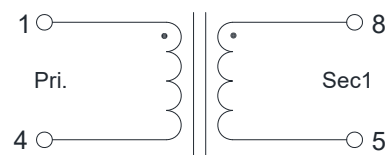
UT38B61S



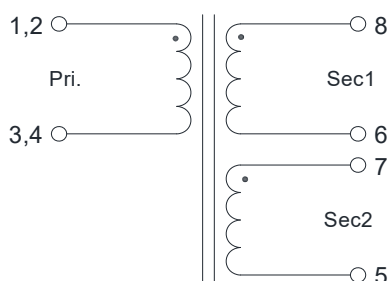
UT38B63S



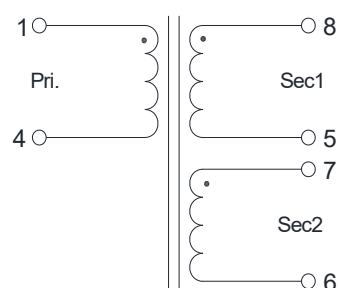
UT38B65S



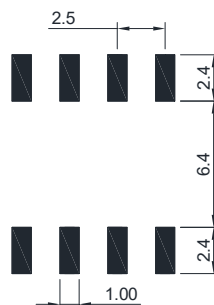
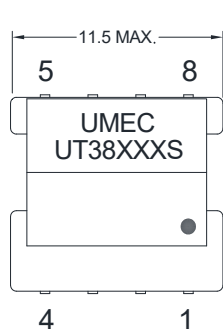
UT38B64S



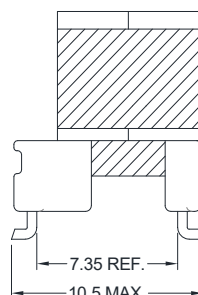
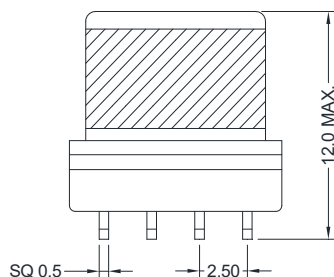
UT38B62S / UT38B66S



Note: The terminals 1+2 and 3+4 show two windings connected in parallel that must be tied as solder bridging on PCB's pad



SUGGESTED P.C.B. LAYOUT



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