

Gate Drive Transformer

Ruggedized



- Surface Mount Package - Pick and Place Compatible Ambient
- Operating Temperature: -40°C to +130°C
- Storage Temperature: -40°C to +130°C
- Operating Frequency: 50kHz an up to 600kHz
- >1500VDC Isolation between Gate and Drive Lead Sn/Pb
- Moisture Sensitivity Level: 3

Electrical Specifications 25°C

Part 3,4 Number	Turns Ratio 50kHz/0.4Vrms (+ 3%)		Inductance 50kHz/0.02Vrms (mH MIN)	Leakage Inductance 100kHz/1.0Vrms (µH MAX)		DCR (mΩ MAX)		ET ¹ (V*µsec)	Dielectric Withstanding Voltage @5s MIN (Vrms)	
PL3057	(3-6) : (1-8)	(4-5) : (1-8)	(1-8)	(1-8)	(3-6) = (4-5) shorted	(1-8)	(3-6) = (4-5)	27.2	(1-8) to (3-6)	(1-8) to (4-5)
	0.4	0.4	1.2	910	380	910	380		1500	1500

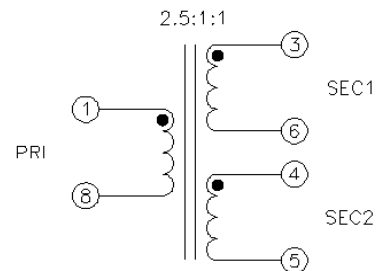
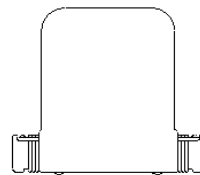
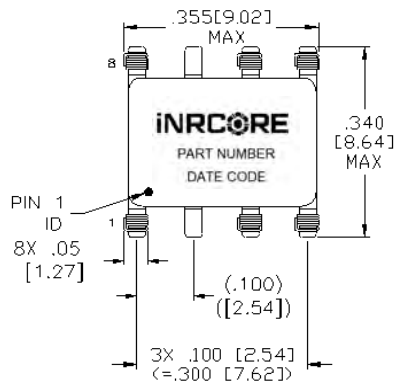
Notes:

- The maximum volt-µsec rating limits the peak flux density to 2200 Gauss when used in a unipolar drive application. For bi-polar drive applications a maximum volt-µsec of two times this rating is acceptable (ie: 2* (volt*µsec rating) Volt*µsec = (voltage applied to the primary) * dutycycle / Frequency = V * µsec
* alpha / Freq_Hz = V * µsec
- Leakage inductance is measured at primary terminals with all secondaries shorted.
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PL3057 becomes PL3057T).
- The "NL" suffix indicates an RoHS-compliant part number. Non-NL suffixed parts are not necessarily RoHS compliant, but are electrically and mechanically equivalent to NL versions. If a part number does not have the "NL" suffix, but an RoHS compliant version is required, please contact PulseR for availability.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

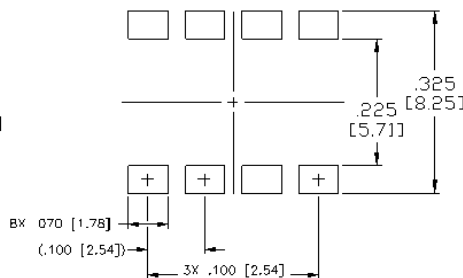
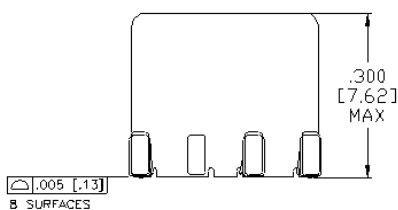
Mechanical

Schematic

PL3057



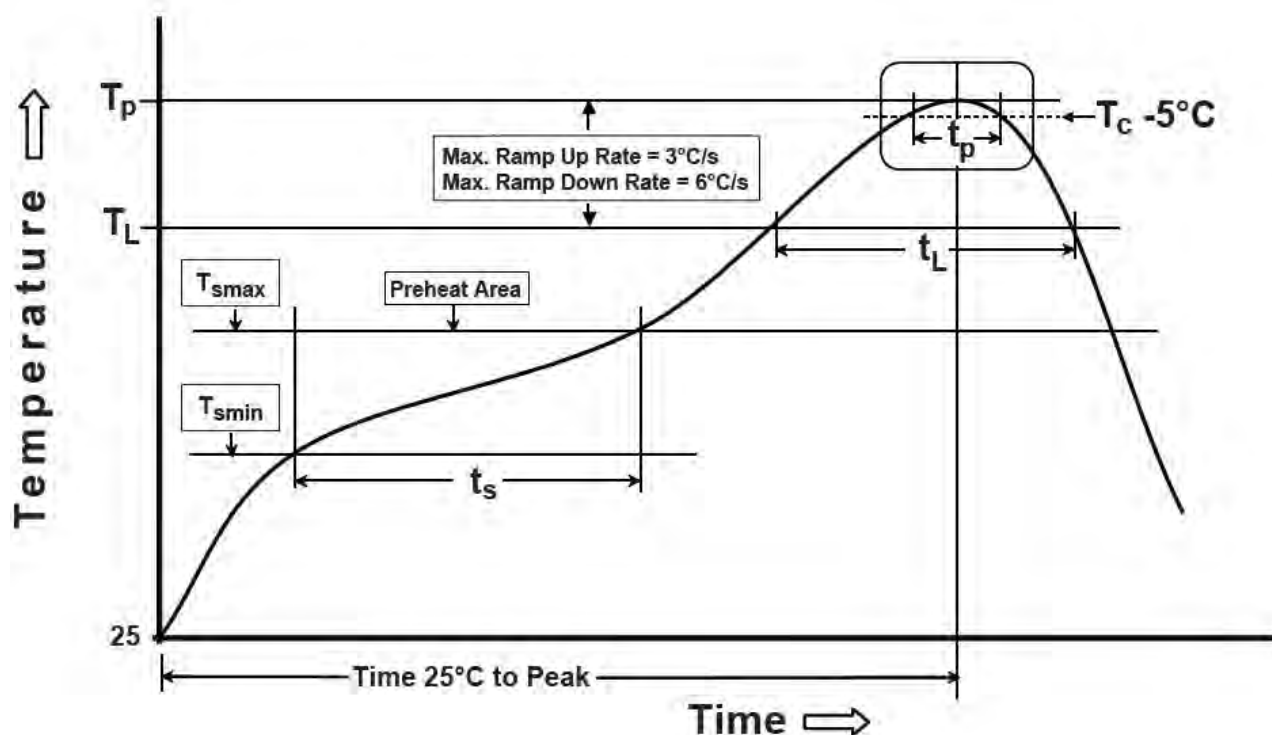
SCHEMATIC



Dimensions: inches[mm]
 Unless otherwise specified,
 all tolerances are $\pm \frac{.010}{0.25}$
 Weight.....TBD
 Tape and Reel.....400pcs/reel
 Tube.....50pcs/tube



Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



T_{SMIN} (°C)	T_{SMAX} (°C)	T_L (°C)	T_P (°C MAX)	t_s (s)	t_L (s)	t_p (s MAX)	Ramp-up rate (T_L to T_P)	Ramp-down rate (T_P to T_L)	Time 25°C to peak temperature (s MAX)
100	150	183	235	60-120	60-150	20	3°C/s MAX	6°C/s MAX	360

Notes:

1. All temperatures measured on the package leads.
2. Maximum times of reflow cycle: 2.

For More Information

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