

SMT CURRENT SENSE TRANSFORMERS

Low Primary DCR



Ruggedized

- ⊗ Height: 5.5mm Max
- ⊗ Footprint: 8.4mm x 7.2mm Max
- ⊗ Current Rating: up to 20A
- ⊗ Frequency Range: 50kHz to 1MHz
- ⊗ Surface Mount Package - Pick and Place Compatible
- ⊗ Varnished Windings
- ⊗ Ambient Operating Temperature: -55°C to +130°C
- ⊗ Storage Temperature: -55°C to +130°C
- ⊗ Isolation Voltage: 1000Vrms Max
- ⊗ Moisture Sensitivity Level: 1
- ⊗ Solder Reflow Processing: 235°C peak temperature
- ⊗ Lead Finish: Hot Solder Dipped: Sn63%/Pb37%
- ⊗ Meets Environmental Requirements: MIL-PRF-27F Grade 5 Class
- ⊗ Space Grade versions that meet workmanship IAW MIL-STD-981 are available on special request
- ⊗ Low Primary DCR

Electrical Specifications @ 25°C — Operating Temperature -55°C to +130°C

Part ^{5,6} Number	Turns Ratio	Current ² Rating (A)	Secondary Inductance (mH MIN)	DCR (mΩ MAX)		Hipot (V _{RMS})
				Primary (8-7)	Secondary (1-3)	
PL3258	1:20	20	0.08	0.75	550	1000
PL3259	1:30	20	0.18	0.75	870	1000
PL3260	1:40	20	0.32	0.75	1140	1000
PL3261	1:50	20	0.50	0.75	1500	1000
PL3262	1:60	20	0.72	0.75	2500	1000
PL3263	1:70	20	0.98	0.75	4750	1000
PL3264	1:100	20	2.00	0.75	6000	1000
PL3265	1:125	20	3.00	0.75	7700	700
PL3479	1:200	20	8.00	0.75	17000	700

NOTES:

- The temperature of the component (ambient temperature plus temperature rise) must be within the specified operating temperature range.
- The maximum current rating is based upon temperature rise of the component and represents the dc current which will cause a typical temperature rise of 40°C with no air flow.
- To calculate the value of the terminating resistor (Rt) use the following formula: $R_t (W) = V_{REF} * N / (I_{peak_primary})$
- The peak flux density of the device must remain below 2000 Gauss. To calculate the peak flux density for a uni-polar current use the following formula:
 $B_{PK} = 37.59 * V_{REF} * (Duty_Cycle_Max) * 10^5 / (N * Freq_kHz)$
 * for bi-polar current applications divide B_{PK} as calculated above by 2.
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PL3258 becomes PL3258T). Pulse complies to industry standard tape and reel specifications EIA481.
- The "NL" suffix indicates an RoHS-compliant part number.



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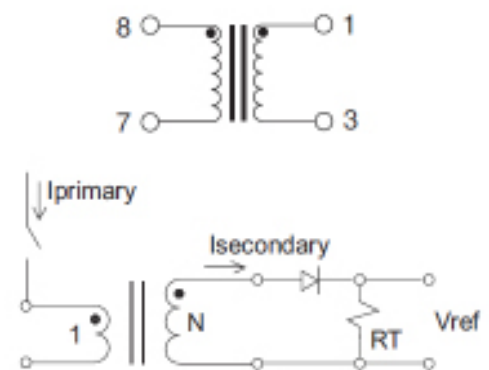
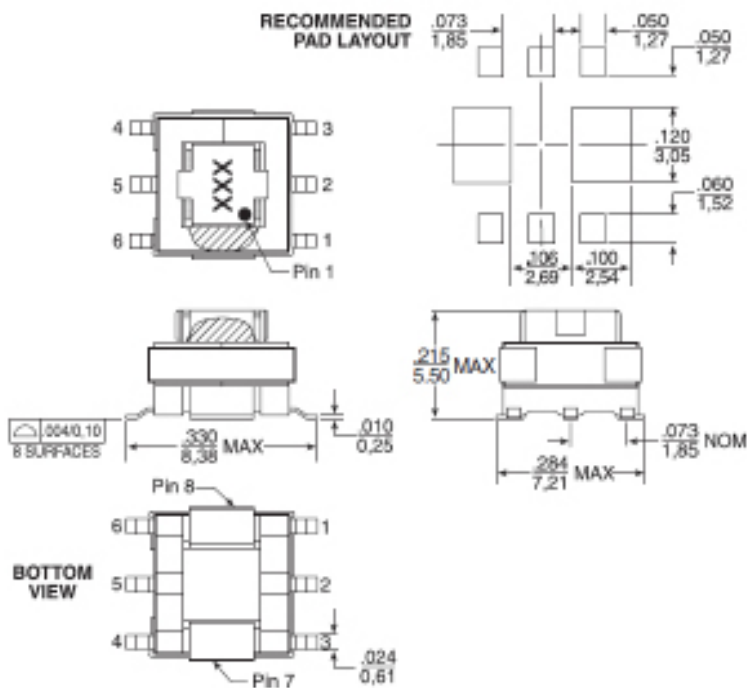
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Mechanical

Schematic

PL325X



APPLICATION CIRCUIT

Weight 0.34 grams
 Tray 120/tray
 Tape & Reel 900/reel
 Coplanarity 0.004 inches

Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm \frac{.010}{.025}$



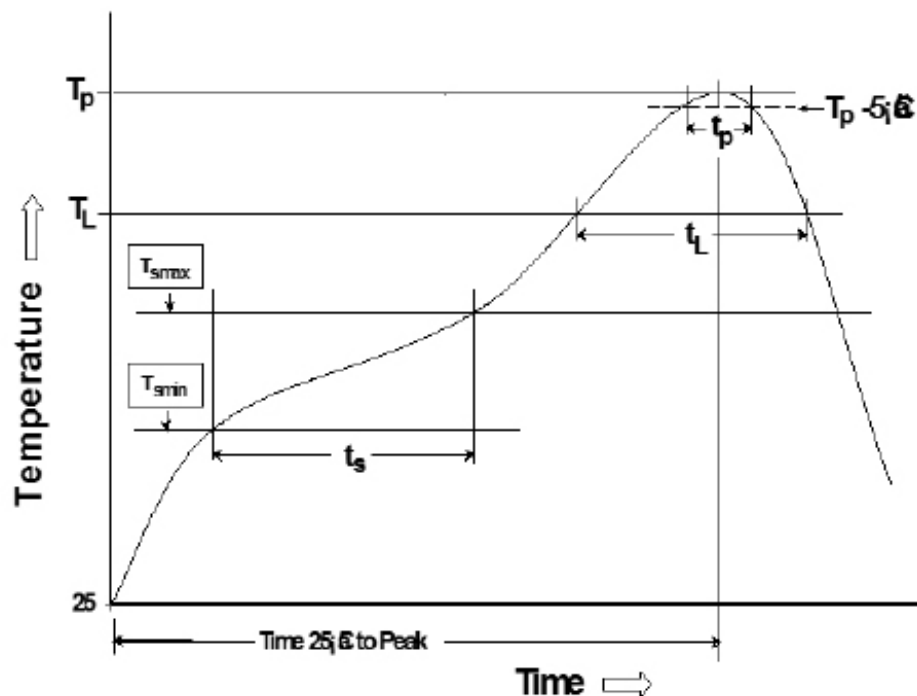
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Transceiver Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



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	225	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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