ESL ElectroScience

CERAMIC TAPES &
THICK-FILM MATERIALS

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CERMET SILVER/PALADIUM CONDUCTOR 9633-T

For use on AIN Substrates

ESL 9633-T is a high performance conductor specially formulated for use on aluminium nitride substrates. It exhibits good adhesion, very good solderability, leach resistance, and silver migration resistance.

PASTE DATA

Rheology:	Thixotropic screen-printable paste
Viscosity: (Brookfield RVT, 10rpm, ABZ Spindle, 25.5 ± 0.5 °C)	275 ± 25 Pa.s
Bonding Mechanism:	Mixed
Shelf Life (20 - 25 °C):	6 months

PROCESSING

Screen Mesh, Emulsion:		325 S/S, 25 µm
Levelling Time (at 20 °C):		5 - 10 min
Drying Time (at 125 °C):		10 - 15 min
Firing Temperature Range:		850 - 930 °C
	Optimum:	850 °C
	Time at peak:	10 - 12 min
Rate of Ascent/Descent:		60 - 100°C / min
Substrate for Calibration:		aluminium nitride
Thinner:		ESL 401

See Caution and Disclaimer on page 2.

TYPICAL PROPERTIES

Fired Thickness:
(2 mm x 2 mm pad)   10 - 15 µm

Approximate Coverage: 75 - 100 cm²/g

Resistivity:
(at 12.5 µm fired thickness)   ≤ 50 mΩ/sq.

Printing Resolution:
(line/space)   0.250 mm / 0.250 mm

Solder Wettability:
(RMA Flux, 5 sec. dip
62Sn/36Pb/2Ag, 220°C)   Very good

Solder Leach:
(No. of 10 sec. dips to double lowest resistance of
100 mm x 0.25 mm conductor, 62Sn/36Pb/2Ag, 220°C)   > 8 dips

Adhesion:
(90° pull, 2 mm x 2 mm pads, 62Sn/36Pb/2Ag, 220°C)

Initial pull strength: > 7.5 kg