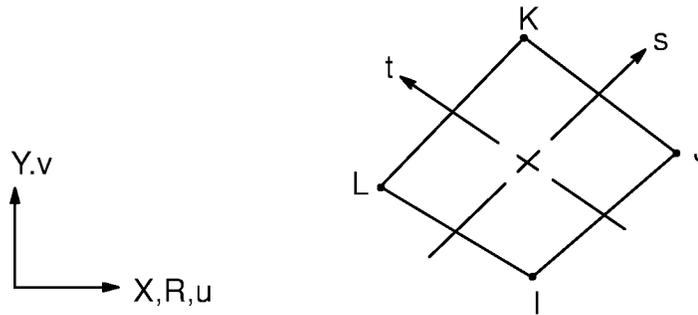


14.67 PLANE67 — 2-D Coupled Thermal–Electric Solid



Matrix or Vector	Geometry	Shape Functions	Integration Points
Conductivity Matrix	Quad	Equations (12.6.5–20) and (12.6.5–21)	2 x 2
	Triangle	Equations (12.6.1–20) and (12.6.1–21)	3
Specific Heat Matrix	Same as for thermal conductivity matrix. Matrix is diagonalized as described in Section 13.2.		Same as conductivity matrix
Heat Generation Load Vector	Same as specific heat matrix		Same as conductivity matrix
Convection Surface Matrix and Load Vector	Same as specific heat matrix evaluated at the face		2

Reference: Kohnke and Swanson(19)

14.67.1 Other Applicable Sections

Section 11.2 discusses thermal–electric elements. Section 13.1 describes integration point locations.