

## Supporting notes for the bond wire fusing current. Units

With respect to the fusing current expression:

The units of D are:	cm
The units of T are:	Deg K
The units of C are:	Joules/Deg K.g ( g = gram)
The units of $\rho$ are:	$g/cm^3$
The units of t are:	secs
The units of $r$ are:	Ohm_cm

Then inserting these units into the current expression we get for units:

$$\text{Amp} = \text{cm}^2 * \left[ \frac{K^{\circ} J}{K^{\circ} .g} \cdot \frac{g}{\text{cm}^3} \frac{1}{\text{sec} . \text{ohm} - \text{cm}} \right]^{1/2}$$

Or

$$\text{Amp} = \text{cm}^2 \left[ \frac{J}{\text{cm}^4} \frac{1}{\text{sec} . \text{ohm}} \right]^{1/2}$$

Or,

$$\text{Amp} = \text{cm}^2 \left[ \frac{\text{Volt} - \text{Amp} - \text{sec}}{\text{cm}^4 \text{ sec} \cdot \text{ohm}} \cdot \frac{1}{\text{cm}^4 \text{ sec} \cdot \text{ohm}} \right]^{1/2}$$

Or,

$$\text{Amp} = \left[ \frac{\text{Volt} - \text{Amp}}{\text{ohm}} \cdot \frac{1}{\text{ohm}} \right]^{1/2}$$

Or,

Amp = Amp. The units agree.