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REVISION			
REV.	DESCRIPTION	DATE	APPROVED

## FORMULA DERATING FORMULA AND CURVE

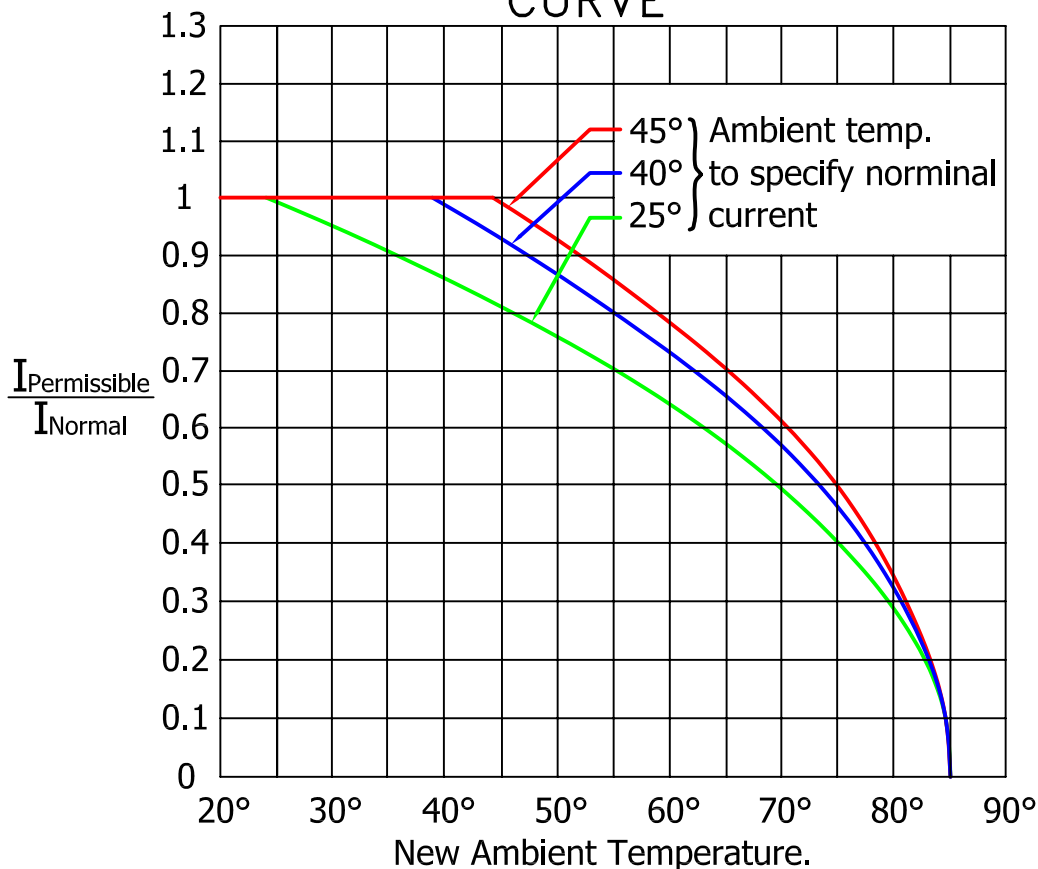
$$I_{\text{Permissible}} = I_{\text{Normal}} * \sqrt{\frac{\vartheta_{\text{Max.}} - \vartheta_{\text{Normal}}}{\vartheta_{\text{Max.}} - \vartheta_{\text{Ambient}}}}$$

$I_{\text{Permissible}}$ : Permissible current at new ambient.

$I_{\text{Normal}}$ : Normal rated current.  $\vartheta_{\text{Normal}}$ : New ambient temperature.

$\vartheta_{\text{Max.}}$ : Maximum temperature.  $\vartheta_{\text{Ambient}}$ : Ambient temperature.

### CURVE



### EXAMPLE

What is the rated current at 55°C (858-06/011, 6A @ 40°C)

Ans:  $I = 6 * \sqrt{(100-55)/(100-40)} = 5.196A$

**CONTROLLED**

Dim range (mm)		Tolerance +/- (mm)	Qualtek Electronics Corp. PPC DIVISION		
0-1	1-6	6-18	18-50	50-120	120-250
0.15	0.20	0.30	0.50	0.70	0.90
250-500	1.20	Part Number: DERATING <span style="border: 1px solid green; padding: 2px;">RoHS Compliant</span>			
Description: EMI FILTER			Drawn / Date	Checked / Date	Approved / Date
			R. Nuti 05-16-13	05-16-13	LY / 05-16-13