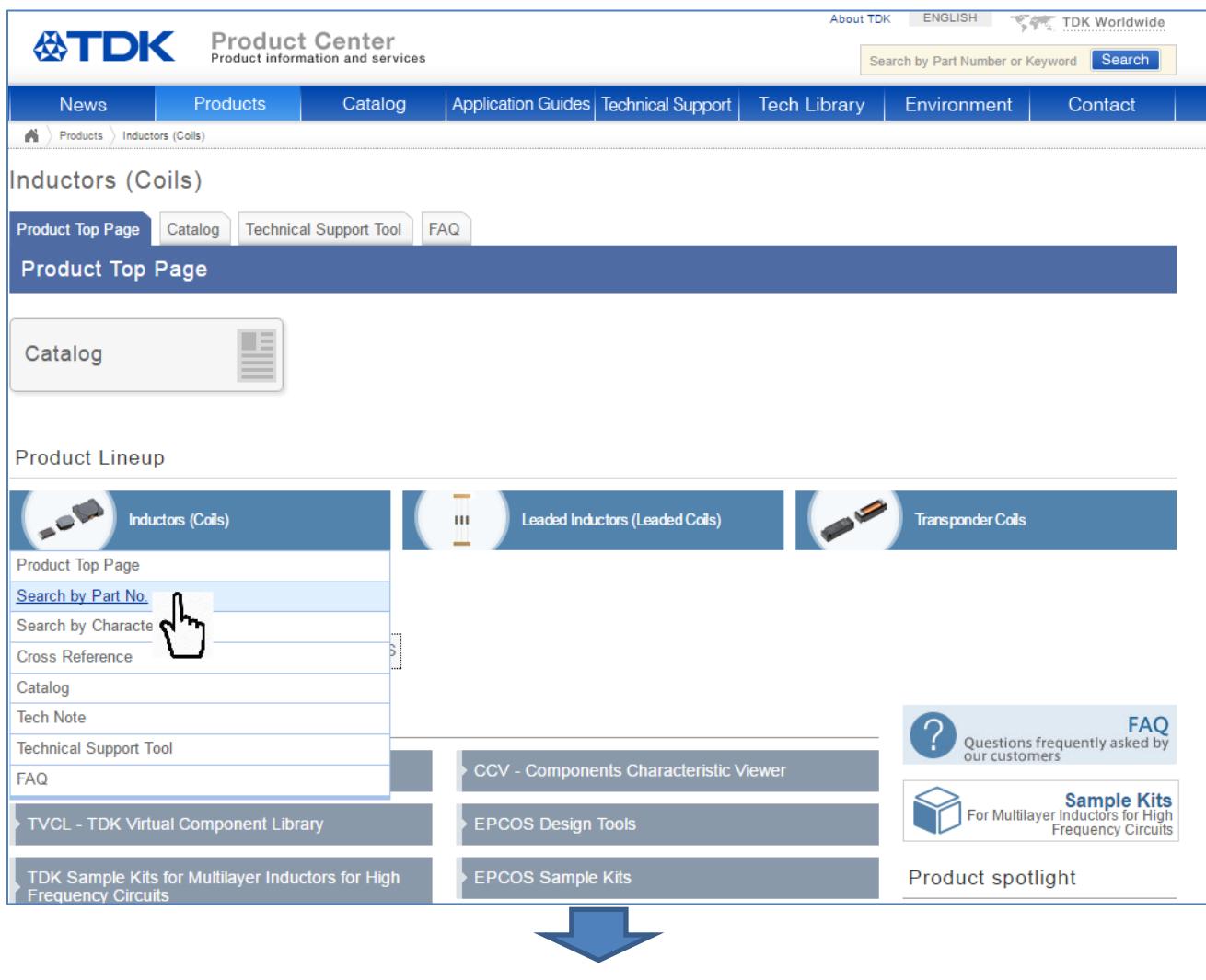


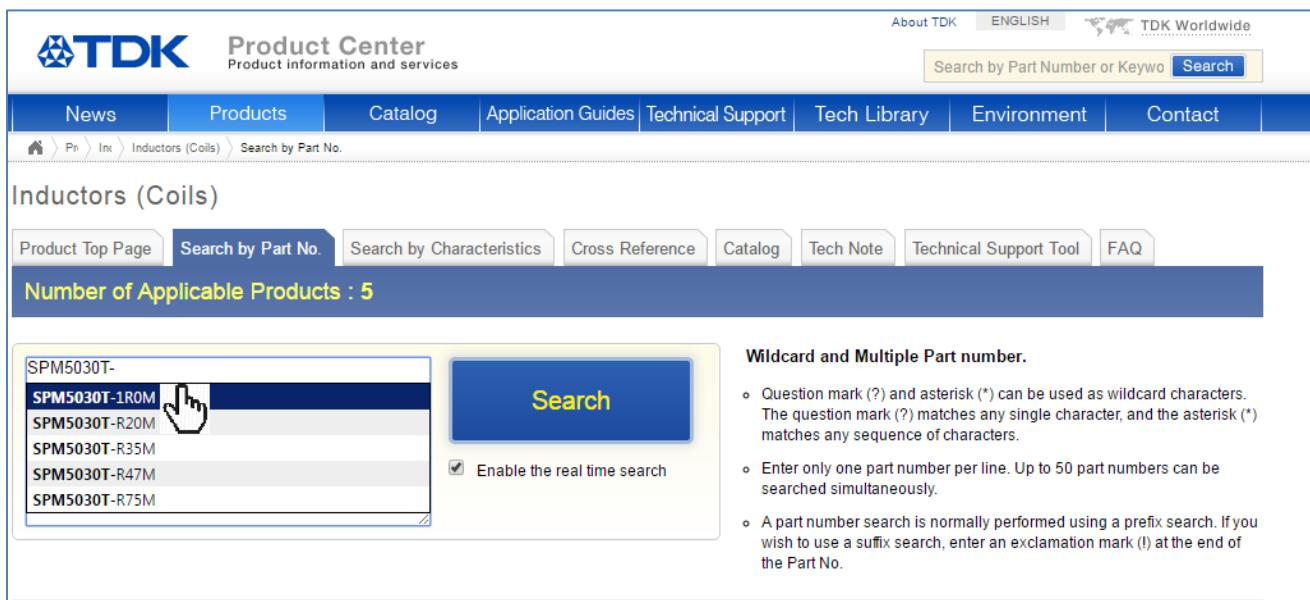
# Total Loss Calculation Steps for Online Tool

## 1.- From Inductor drop down menu, select “Search by Part number” option



The screenshot shows the TDK Product Center website for Inductors (Coils). At the top, there is a navigation bar with links for News, Products, Catalog, Application Guides, Technical Support, Tech Library, Environment, and Contact. The 'Products' link is highlighted. Below the navigation bar, there is a breadcrumb trail: Home > Products > Inductors (Coils). The main content area is titled 'Inductors (Coils)' and includes a 'Product Top Page' button. Below this, there is a 'Catalog' button with a document icon. The 'Product Lineup' section features three categories: 'Inductors (Coils)', 'Leaded Inductors (Leaded Coils)', and 'Transponder Coils'. On the left, a sidebar contains links for 'Product Top Page', 'Search by Part No.' (which is highlighted with a large blue arrow pointing to the search results), 'Search by Characteristics', 'Cross Reference', 'Catalog', 'Tech Note', 'Technical Support Tool', 'FAQ', 'TVCL - TDK Virtual Component Library', 'CCV - Components Characteristic Viewer', 'EPCOS Design Tools', 'TDK Sample Kits for Multilayer Inductors for High Frequency Circuits', 'EPCOS Sample Kits', and 'Product spotlight'. On the right, there are links for 'FAQ' (Questions frequently asked by our customers) and 'Sample Kits' (For Multilayer Inductors for High Frequency Circuits).

## 2.- On the search Box, enter / select the desired part number



The screenshot shows the TDK Product Center website search results for the part number 'SPM5030T-1R0M'. The search results table lists five applicable products: SPM5030T-1R0M, SPM5030T-R20M, SPM5030T-R35M, SPM5030T-R47M, and SPM5030T-R75M. To the right of the table, there is a section titled 'Wildcard and Multiple Part number.' with the following instructions:

- Question mark (?) and asterisk (\*) can be used as wildcard characters. The question mark (?) matches any single character, and the asterisk (\*) matches any sequence of characters.
- Enter only one part number per line. Up to 50 part numbers can be searched simultaneously.
- A part number search is normally performed using a prefix search. If you wish to use a suffix search, enter an exclamation mark (!) at the end of the Part No.

### 3.- From the parameter box, select “Total Loss” option

Inductors (Coils)

Product Top Page | Search by Part No. | Search by Characteristics | Cross Reference | Catalog | Tech Note | Technical Support Tool | FAQ

Number of Applicable Products : 1

Parameter Change

SPM5030T-1R0M | Search | L x W Size | Inductance | Thickness | Tolerance | Rated Current | DC Resistance | Self-Resonant Frequency | Operating Temperature Range | Product Status | Applications | Processing and Feature | DC Bias Characteristic | Temperature Rise by DC | Impedance | Rac | Q | Total Loss | 

[Current Search Conditions] Part No.: SPM5030T-1R0M [clear](#)

Check	Catalog / Data Sheet	Part No. 	Distributor Inventory	Brand	Apps. 	Feature 	L x W Size	T(Max.) / mm	Inductance	Tolerance	Rated Current / A	Rdc (Max.) / Ω	SRF(Typ.) / GHz	Operating Temp. Range / °C	AEC-Q200	Simulation Model 
<input type="checkbox"/>	 	 SPM5030T-1R0M	<a href="#">Buy Now</a>	TDK		  	5.2mm x 5.0mm	3	1µH	±20%	10.1	0.01144		-40 to 125	 	

Compare | Catalog / Data Sheet | Simulation Model | 

20 | 1 | CSV | 



### 4.- In the Dialog Window, check the “Total Loss” box and enter the operating parameters click Apply button and then close the dialog window.

TDK Product Center Product information and services

About TDK | ENGLISH | TDK Worldwide | Search by Part Number or Keyword | Search

News | Products | Catalog | Application Guides | Technical Support | Tech Library | Environment | Contact

Inductors (Coils) | Search Result

Inductors (Coils)

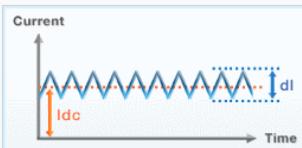
Product Top Page | Search by Part No. | Search by Characteristics | Cross Reference | Catalog | Tech Note | Technical Support Tool | FAQ

Number of Applicable Products : 1

Parameter Change

Total Loss

Switching Frequency: 300 kHz | dl : Ripple Current: 0.75 A | Idc : Continuous DC: 3.5 A | Total Loss:  W or lower



Apply | 

Search can be performed using the total loss obtained by adding core loss and winding loss from specifying a switching frequency, dl, and Idc. Only the maximum value can be set for the total loss. When no total loss is specified, the core loss, winding loss, and the total loss under the specified condition for all target inductors will be displayed in the search result screen. The value of self temperature rise by the total loss will also be displayed.

AEC-Q200 | Simulation Model 



