$\frac{\Delta(T)}{\Delta(0)} \sim 1 - e^{-\Delta(0)/k_B T} \quad (T < T_c/3)$

BCS Prediction:

$\frac{2\Delta(0)}{k_B T_c} = 3.528$

$\frac{\Delta(T)}{\Delta(0)} \approx 1.74 \left(1 - \frac{T}{T_c}\right)^{1/2}$

$(T \approx T_c)$

T/T_c

Figure 10 Reduced values of the observed energy gap $E_g(T)/E_g(0)$ as a function of the reduced temperature T/T_c, after Townsend and Sutton. The solid curve is drawn for the BCS theory.

TABLE 3 Energy Gaps in Superconductors, at $T = 0$

ν_{gap} in GHz
$E_g(0)$ in 10^{-4} eV. ?
$E_g(0)/k_B T_c = 2\Delta/k_B T_c$

$\frac{2\Delta(0)}{k_B T_c}$

Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	Al	Si
		386.9							58.03	79.79		82.21	
		16.							2.4	3.3		3.4	
		3.4							3.2	3.5		3.3	
Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn (w)
		???.?	65.2?						36.27	25.39	278.1
		30.5	2.7						1.5	10.5	11.5
		3.80	3.4						3.2	3.6	3.5
La fcc	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg (α)	Tl	Pb
57.4		338.5							399.0	177.7	660.1
19.		14.							16.5	7.35	27.3
3.7		3.80							4.6	3.57	4.38

$h\nu = E_g$