$\pm M \times 2^{\pm E}$ 1 bit for $\pm$ k bits for $\pm E$ n bits for M

$k = 8$ or 11 $n = 23$ or 52

Normalized: $\pm E$ is not its maximum or minimum value

$1 \le M < 2$

$\pm$	$0 < \pm E + 2^{k-1} - 1 < 2^k - 1$	$(M-1)2^n$
	$\pm E = e + 1 - 2^{k-1}$	$M = 1 + f/2^n$

Denormalized: $\pm E$ is its minimum value (which is negative)

$0 \le M < 1$

$\pm$	0	$M2^n$
	$\pm E = 2 - 2^{k-1}$	$M = f/2^n$

Infinity: $\pm E$ is its maximum value

$\pm$	$2^k - 1$	0

Not-a-Number: $\pm E$ is its maximum value (many representations!)

$\pm$	$2^k - 1$	non-0