Supporting information

Ultrahigh-power-density BNT ferroelectric multilayer ceramic capacitors for pulse power energy conversion components

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Sample (unpoled)	*Unit cell parameters(Å)*		*Weight fraction in %*	*Fitting parameter*
	Phase 1, R3c	*Phase 2, P4bm*		
BNT-BA-NN	*a*=*b*=5.48186	*a*=*b*=5.499030	*R3c*=98.46	$\chi^2=1.87$
	c=13.4890	*c*=4.034300	*P4bm*=1.54	$R_p=2.31$
	c/*a*=2.4593	*c*/*a*=0.7336		$R_{wp}=3.04$
	volume=351.047	volume=121.994		$R_{exp}=2.22$

Table S1. Refined refinement results of unpoled BNT-BA-NN ceramic.

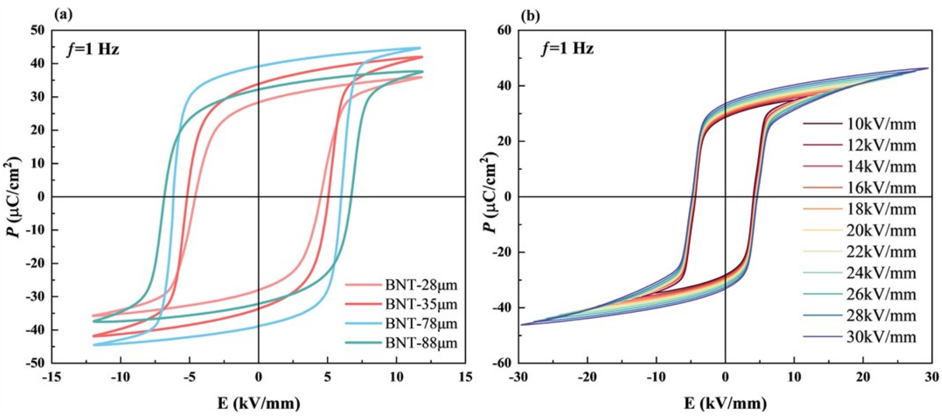

Figure S1. (a) *P*–*E* loops of BNT MLCCs; (b) *P*–*E* loops of BNT-28μm MLCCs.

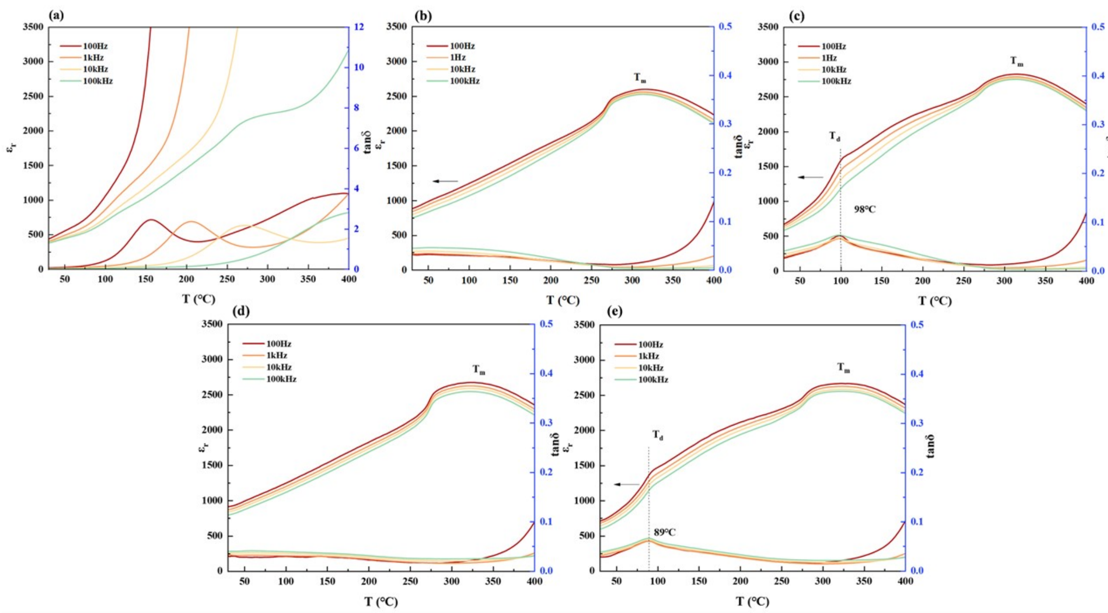

Figure S2. The temperature dependencies of dielectric permittivity (ε_r) and loss tangent (tanδ) measured at selected frequencies for (a) unpoled BNT-88μm MLCCs; (b) unpoled and (c) poled BNT-35μm MLCCs; (d) unpoled and (e) poled BNT-28μm MLCCs.

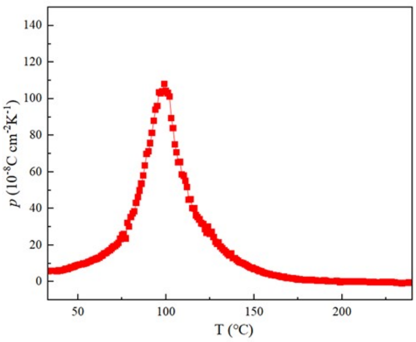

Figure S3. The pyroelectric coefficient of BNT-35μm MLCC.