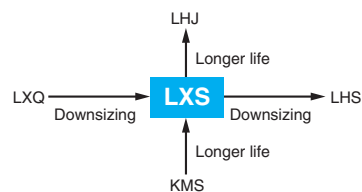


LXS Series

- For solar power generation
- Endurance with ripple current : 5,000 hours at 105°C
- Rated voltage range : 160 to 600V
- Downsized from LXQ series
- Non solvent resistant type
- RoHS2 Compliant

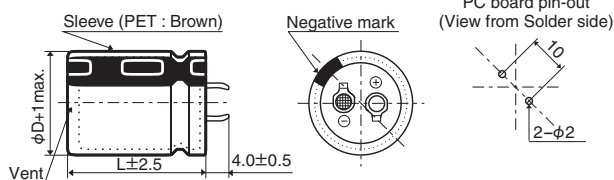


SPECIFICATIONS

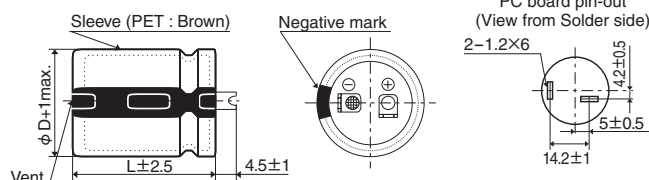
Items	Characteristics			
Category	-25 to +105℃			
Temperature Range				
Rated Voltage Range	160 to 600V _{dc}			
Capacitance Tolerance	± 20% (M) (at 20℃, 120Hz)			
Leakage Current	I≤3√CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃ after 5 minutes)			
Dissipation Factor (tan δ)	Rated voltage (V _{dc})	160 to 400V	420 to 600V	(at 20℃, 120Hz)
	tan δ (Max.)	0.15	0.20	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	160 to 400V	420 to 600V	(at 120Hz)
	Z(-25℃)/Z(+20℃)	4	8	
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 5,000 hours at 105℃.			
	Capacitance change	≤ ±20% of the initial value		
	D.F. (tan δ)	≤200% of the initial specified value (500V _{dc} : ≤ 250%, 550, 600V _{dc} : ≤ 300%)		
	Leakage current	≤ The initial specified value		
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.			
	Capacitance change	≤ ± 15% of the initial value		
	D.F. (tan δ)	≤150% of the initial specified value		
	Leakage current	≤ The initial specified value		

DIMENSIONS [mm]

- Terminal Code : VS (φ22 to φ35) : Standard

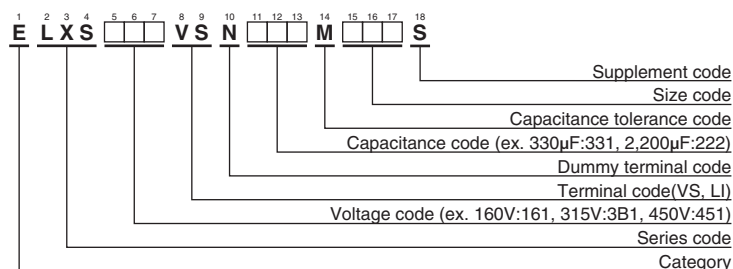


- Terminal Code : LI (φ30, φ35)



The standard design has no plastic disc.

PART NUMBERING SYSTEM



Please refer to "Product code guide (snap-in type)"



◆STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 105°C, 120Hz)	Part No.	WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 105°C, 120Hz)	Part No.
160	470	22 × 25	0.15	1.47	ELXS161VSN471MP25S	200	1,500	35 × 35	0.15	3.36	ELXS201VSN152MA35S
	680	22 × 30	0.15	1.86	ELXS161VSN681MP30S		1,800	30 × 50	0.15	3.72	ELXS201VSN182MR50S
	680	25.4 × 25	0.15	1.84	ELXS161VSN681MQ25S		1,800	35 × 40	0.15	3.81	ELXS201VSN182MA40S
	820	22 × 35	0.15	2.09	ELXS161VSN821MP35S		2,200	35 × 45	0.15	4.32	ELXS201VSN222MA45S
	820	25.4 × 30	0.15	2.08	ELXS161VSN821MQ30S		2,700	35 × 50	0.15	4.88	ELXS201VSN272MA50S
	1,000	22 × 40	0.15	2.35	ELXS161VSN102MP40S	250	270	22 × 25	0.15	1.11	ELXS251VSN271MP25S
	1,000	22 × 45	0.15	2.40	ELXS161VSN102MP45S		330	22 × 30	0.15	1.29	ELXS251VSN331MP30S
	1,000	25.4 × 35	0.15	2.40	ELXS161VSN102MQ35S		390	22 × 35	0.15	1.44	ELXS251VSN391MP35S
	1,000	30 × 25	0.15	2.50	ELXS161VSN102MR25S		390	25.4 × 25	0.15	1.40	ELXS251VSN391MQ25S
	1,200	22 × 50	0.15	2.69	ELXS161VSN122MP50S		470	22 × 40	0.15	1.61	ELXS251VSN471MP40S
	1,200	25.4 × 40	0.15	2.68	ELXS161VSN122MQ40S		470	25.4 × 30	0.15	1.57	ELXS251VSN471MQ30S
	1,200	30 × 30	0.15	2.77	ELXS161VSN122MR30S		560	22 × 45	0.15	1.79	ELXS251VSN561MP45S
	1,200	35 × 25	0.15	2.91	ELXS161VSN122MA25S		560	25.4 × 35	0.15	1.79	ELXS251VSN561MQ35S
	1,500	25.4 × 45	0.15	3.05	ELXS161VSN152MQ45S		560	30 × 25	0.15	1.87	ELXS251VSN561MR25S
	1,500	30 × 35	0.15	3.17	ELXS161VSN152MR35S		680	22 × 50	0.15	2.02	ELXS251VSN681MP50S
	1,800	25.4 × 50	0.15	3.40	ELXS161VSN182MQ50S		680	25.4 × 40	0.15	2.02	ELXS251VSN681MQ40S
	1,800	30 × 40	0.15	3.57	ELXS161VSN182MR40S		680	30 × 30	0.15	2.08	ELXS251VSN681MR30S
	1,800	35 × 30	0.15	3.62	ELXS161VSN182MA30S		680	35 × 25	0.15	2.19	ELXS251VSN681MA25S
	2,200	30 × 45	0.15	4.05	ELXS161VSN222MR45S		820	25.4 × 45	0.15	2.26	ELXS251VSN821MQ45S
	2,200	30 × 50	0.15	4.11	ELXS161VSN222MR50S		820	25.4 × 50	0.15	2.29	ELXS251VSN821MQ50S
	2,200	35 × 35	0.15	4.07	ELXS161VSN222MA35S		820	30 × 35	0.15	2.34	ELXS251VSN821MR35S
	2,700	35 × 40	0.15	4.67	ELXS161VSN272MA40S		820	35 × 30	0.15	2.45	ELXS251VSN821MA30S
	2,700	35 × 45	0.15	4.78	ELXS161VSN272MA45S		1,000	30 × 40	0.15	2.66	ELXS251VSN102MR40S
180	3,300	35 × 50	0.15	5.40	ELXS161VSN332MA50S		1,200	30 × 45	0.15	2.99	ELXS251VSN122MR45S
	390	22 × 25	0.15	1.34	ELXS181VSN391MP25S	315	1,200	30 × 50	0.15	3.04	ELXS251VSN122MR50S
	560	22 × 30	0.15	1.68	ELXS181VSN561MP30S		1,200	35 × 35	0.15	3.00	ELXS251VSN122MA35S
	560	25.4 × 25	0.15	1.67	ELXS181VSN561MQ25S		1,200	35 × 40	0.15	3.11	ELXS251VSN122MA40S
	680	22 × 35	0.15	1.90	ELXS181VSN681MP35S		1,500	35 × 45	0.15	3.56	ELXS251VSN152MA45S
	820	22 × 40	0.15	2.13	ELXS181VSN821MP40S		1,800	35 × 50	0.15	3.98	ELXS251VSN182MA50S
	820	25.4 × 30	0.15	2.08	ELXS181VSN821MQ30S	400	180	22 × 25	0.15	0.95	ELXS3B1VSN181MP25S
	820	25.4 × 35	0.15	2.17	ELXS181VSN821MQ35S		220	22 × 30	0.15	1.10	ELXS3B1VSN221MP30S
	820	30 × 25	0.15	2.26	ELXS181VSN821MR25S		220	25.4 × 25	0.15	1.10	ELXS3B1VSN221MQ25S
	1,000	22 × 45	0.15	2.40	ELXS181VSN102MP45S		270	22 × 35	0.15	1.24	ELXS3B1VSN271MP35S
	1,000	22 × 50	0.15	2.45	ELXS181VSN102MP50S		270	25.4 × 30	0.15	1.25	ELXS3B1VSN271MQ30S
	1,000	25.4 × 40	0.15	2.45	ELXS181VSN102MQ40S		330	22 × 40	0.15	1.40	ELXS3B1VSN331MP40S
	1,000	30 × 30	0.15	2.52	ELXS181VSN102MR30S		330	30 × 25	0.15	1.43	ELXS3B1VSN331MR25S
	1,000	35 × 25	0.15	2.66	ELXS181VSN102MA25S		390	22 × 45	0.15	1.56	ELXS3B1VSN391MP45S
	1,200	25.4 × 45	0.15	2.73	ELXS181VSN122MQ45S		390	22 × 50	0.15	1.59	ELXS3B1VSN391MP50S
	1,200	30 × 35	0.15	2.83	ELXS181VSN122MR35S		390	25.4 × 35	0.15	1.57	ELXS3B1VSN391MQ35S
	1,500	25.4 × 50	0.15	3.10	ELXS181VSN152MQ50S		470	25.4 × 40	0.15	1.76	ELXS3B1VSN471MQ40S
	1,500	30 × 40	0.15	3.26	ELXS181VSN152MR40S		470	25.4 × 45	0.15	1.79	ELXS3B1VSN471MQ45S
	1,500	35 × 30	0.15	3.31	ELXS181VSN152MA30S		470	30 × 30	0.15	1.73	ELXS3B1VSN471MR30S
	1,800	30 × 45	0.15	3.66	ELXS181VSN182MR45S		470	35 × 25	0.15	1.82	ELXS3B1VSN471MA25S
	1,800	35 × 35	0.15	3.68	ELXS181VSN182MA35S		560	25.4 × 50	0.15	1.99	ELXS3B1VSN561MQ50S
	2,200	30 × 50	0.15	4.11	ELXS181VSN222MR50S		560	30 × 35	0.15	1.93	ELXS3B1VSN561MR35S
	2,200	35 × 40	0.15	4.22	ELXS181VSN222MA40S		560	35 × 30	0.15	2.02	ELXS3B1VSN561MA30S
	2,200	35 × 45	0.15	4.32	ELXS181VSN222MA45S		680	30 × 40	0.15	2.19	ELXS3B1VSN681MR40S
200	2,700	35 × 50	0.15	4.88	ELXS181VSN272MA50S		680	30 × 45	0.15	2.25	ELXS3B1VSN681MR45S
	390	22 × 25	0.15	1.34	ELXS201VSN391MP25S		680	35 × 35	0.15	2.26	ELXS3B1VSN681MA35S
	470	22 × 30	0.15	1.54	ELXS201VSN471MP30S		820	30 × 50	0.15	2.51	ELXS3B1VSN821MR50S
	560	22 × 35	0.15	1.72	ELXS201VSN561MP35S	400	820	35 × 40	0.15	2.57	ELXS3B1VSN821MA40S
	560	25.4 × 25	0.15	1.67	ELXS201VSN561MQ25S		1,000	35 × 45	0.15	2.91	ELXS3B1VSN102MA45S
	680	22 × 40	0.15	1.94	ELXS201VSN681MP40S		1,200	35 × 50	0.15	3.25	ELXS3B1VSN122MA50S
	680	25.4 × 30	0.15	1.89	ELXS201VSN681MQ30S		120	22 × 25	0.15	0.77	ELXS401VSN121MP25S
	680	30 × 25	0.15	2.06	ELXS201VSN681MR25S		150	22 × 30	0.15	0.90	ELXS401VSN151MP30S
	820	22 × 45	0.15	2.17	ELXS201VSN821MP45S		180	22 × 35	0.15	1.02	ELXS401VSN181MP35S
	820	25.4 × 35	0.15	2.17	ELXS201VSN821MQ35S		180	25.4 × 25	0.15	0.99	ELXS401VSN181MQ25S
	1,000	22 × 50	0.15	2.45	ELXS201VSN102MP50S		220	22 × 40	0.15	1.15	ELXS401VSN221MP40S
	1,000	25.4 × 40	0.15	2.45	ELXS201VSN102MQ40S		220	25.4 × 30	0.15	1.13	ELXS401VSN221MQ30S
	1,000	30 × 30	0.15	2.52	ELXS201VSN102MR30S		220	30 × 25	0.15	1.17	ELXS401VSN221MR25S
	1,000	35 × 25	0.15	2.66	ELXS201VSN102MA25S		270	22 × 45	0.15	1.29	ELXS401VSN271MP45S
	1,200	25.4 × 45	0.15	2.73	ELXS201VSN122MQ45S		270	22 × 50	0.15	1.32	ELXS401VSN271MP50S
	1,200	25.4 × 50	0.15	2.78	ELXS201VSN122MQ50S		270	25.4 × 35	0.15	1.30	ELXS401VSN271MQ35S
	1,200	30 × 35	0.15	2.83	ELXS201VSN122MR35S		330	25.4 × 40	0.15	1.47	ELXS401VSN331MQ40S
	1,200	35 × 30	0.15	2.96	ELXS201VSN122MA30S		330	30 × 30	0.15	1.45	ELXS401VSN331MR30S
	1,500	30 × 40	0.15	3.26	ELXS201VSN152MR40S		330	35 × 25	0.15	1.52	ELXS401VSN331MA25S
	1,500	30 × 45	0.15	3.34	ELXS201VSN152MR45S		390	25.4 × 45	0.15	1.63	ELXS401VSN391MQ45S



LXS Series

◆STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 105°C, 120Hz)	Part No.	WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 105°C, 120Hz)	Part No.
400	390	25.4 × 50	0.15	1.66	ELXS401VSN391MQ50S	450	220	30 × 30	0.20	1.18	ELXS451VSN221MR30S
	390	30 × 35	0.15	1.61	ELXS401VSN391MR35S		220	35 × 25	0.20	1.24	ELXS451VSN221MA25S
	390	35 × 30	0.15	1.68	ELXS401VSN391MA30S		270	25.4 × 45	0.20	1.36	ELXS451VSN271MQ45S
	470	30 × 40	0.15	1.82	ELXS401VSN471MR40S		270	25.4 × 50	0.20	1.38	ELXS451VSN271MQ50S
	470	35 × 35	0.15	1.88	ELXS401VSN471MA35S		270	30 × 35	0.20	1.34	ELXS451VSN271MR35S
	560	30 × 45	0.15	2.04	ELXS401VSN561MR45S		270	35 × 30	0.20	1.40	ELXS451VSN271MA30S
	560	30 × 50	0.15	2.07	ELXS401VSN561MR50S		330	30 × 40	0.20	1.52	ELXS451VSN331MR40S
	560	35 × 40	0.15	2.13	ELXS401VSN561MA40S		390	30 × 45	0.20	1.70	ELXS451VSN391MR45S
	680	35 × 45	0.15	2.40	ELXS401VSN681MA45S		390	30 × 50	0.20	1.73	ELXS451VSN391MR50S
420	820	35 × 50	0.15	2.69	ELXS401VSN821MA50S		390	35 × 35	0.20	1.71	ELXS451VSN391MA35S
	100	22 × 25	0.20	0.70	ELXS421VSN101MP25S	500	470	35 × 40	0.20	1.95	ELXS451VSN471MA40S
	120	22 × 30	0.20	0.81	ELXS421VSN121MP30S		470	35 × 45	0.20	1.99	ELXS451VSN471MA45S
	120	25.4 × 25	0.20	0.81	ELXS421VSN121MQ25S		560	35 × 50	0.20	2.22	ELXS451VSN561MA50S
	150	22 × 35	0.20	0.93	ELXS421VSN151MP35S		100	30 × 25	0.20	0.82	ELXS501VSN101MR25S
	180	22 × 40	0.20	1.04	ELXS421VSN181MP40S		120	30 × 30	0.20	0.91	ELXS501VSN121MR30S
	180	25.4 × 30	0.20	1.02	ELXS421VSN181MQ30S		120	35 × 25	0.20	0.88	ELXS501VSN121MA25S
	180	30 × 25	0.20	1.06	ELXS421VSN181MR25S		150	30 × 35	0.20	1.04	ELXS501VSN151MR35S
	220	22 × 45	0.20	1.17	ELXS421VSN221MP45S		180	30 × 40	0.20	1.17	ELXS501VSN181MR40S
	220	22 × 50	0.20	1.20	ELXS421VSN221MP50S		180	35 × 30	0.20	1.10	ELXS501VSN181MA30S
	220	25.4 × 35	0.20	1.18	ELXS421VSN221MQ35S		220	30 × 45	0.20	1.33	ELXS501VSN221MR45S
	270	25.4 × 40	0.20	1.33	ELXS421VSN271MQ40S		220	35 × 35	0.20	1.23	ELXS501VSN221MA35S
	270	25.4 × 45	0.20	1.36	ELXS421VSN271MQ45S	550	270	30 × 50	0.20	1.50	ELXS501VSN271MR50S
	270	30 × 30	0.20	1.31	ELXS421VSN271MR30S		270	35 × 40	0.20	1.42	ELXS501VSN271MA40S
	270	35 × 25	0.20	1.38	ELXS421VSN271MA25S		330	35 × 45	0.20	1.60	ELXS501VSN331MA45S
	330	25.4 × 50	0.20	1.52	ELXS421VSN331MQ50S		390	35 × 50	0.20	1.78	ELXS501VSN391MA50S
	330	30 × 35	0.20	1.48	ELXS421VSN331MR35S		470	35 × 60	0.20	2.03	ELXS501VSN471MA60S
	330	35 × 30	0.20	1.55	ELXS421VSN331MA30S		120	30 × 30	0.20	0.91	ELXS551VSN121MR30S
	390	30 × 40	0.20	1.66	ELXS421VSN391MR40S		150	30 × 35	0.20	1.04	ELXS551VSN151MR35S
	390	30 × 45	0.20	1.70	ELXS421VSN391MR45S		180	30 × 40	0.20	1.17	ELXS551VSN181MR40S
	390	35 × 35	0.20	1.71	ELXS421VSN391MA35S		180	35 × 30	0.20	1.10	ELXS551VSN181MA30S
450	470	30 × 50	0.20	1.90	ELXS421VSN471MR50S		220	30 × 50	0.20	1.35	ELXS551VSN221MR50S
	470	35 × 40	0.20	1.95	ELXS421VSN471MA40S		220	35 × 40	0.20	1.28	ELXS551VSN221MA40S
	560	35 × 45	0.20	2.17	ELXS421VSN561MA45S		270	35 × 45	0.20	1.45	ELXS551VSN271MA45S
	680	35 × 50	0.20	2.45	ELXS421VSN681MA50S		330	35 × 50	0.20	1.64	ELXS551VSN331MA50S
	82	22 × 25	0.20	0.64	ELXS451VSN820MP25S		390	35 × 60	0.20	1.85	ELXS551VSN391MA60S
	120	22 × 30	0.20	0.81	ELXS451VSN121MP30S	600	120	30 × 40	0.20	0.96	ELXS601VSN121MR40S
	120	22 × 35	0.20	0.83	ELXS451VSN121MP35S		120	35 × 30	0.20	0.95	ELXS601VSN121MA30S
	120	25.4 × 25	0.20	0.81	ELXS451VSN121MQ25S		150	30 × 45	0.20	1.10	ELXS601VSN151MR45S
	150	22 × 40	0.20	0.94	ELXS451VSN151MP40S		150	35 × 35	0.20	1.07	ELXS601VSN151MA35S
	150	25.4 × 30	0.20	0.93	ELXS451VSN151MQ30S		180	30 × 50	0.20	1.22	ELXS601VSN181MR50S
	180	22 × 45	0.20	1.06	ELXS451VSN181MP45S		180	35 × 40	0.20	1.22	ELXS601VSN181MA40S
	180	25.4 × 35	0.20	1.06	ELXS451VSN181MQ35S		220	30 × 60	0.20	1.40	ELXS601VSN221MR60S
	180	30 × 25	0.20	1.06	ELXS451VSN181MR25S		220	35 × 45	0.20	1.38	ELXS601VSN221MA45S
	220	22 × 50	0.20	1.20	ELXS451VSN221MP50S		270	35 × 50	0.20	1.56	ELXS601VSN271MA50S
	220	25.4 × 40	0.20	1.20	ELXS451VSN221MQ40S		330	35 × 60	0.20	1.79	ELXS601VSN331MA60S

◆RATED RIPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
160 to 250V _{dc}	0.81	1.00	1.17	1.32	1.45	1.50
315 to 450V _{dc}	0.77	1.00	1.16	1.30	1.41	1.43
500 to 600V _{dc}	0.70	1.00	1.16	1.30	1.41	1.43

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.



- Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.
- Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.
- The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.
- The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.
- We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.
- We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products
- We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.
In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

[Part Numbering System](#)

[Part Numbering System \(Appendix\)](#)

[Standardization](#)

[Available Items by Manufacturing Locations](#)

[Environmental Measures](#)

[Technical Note](#)

[Precautions and Guidelines](#)

[Recommended Soldering Conditions](#)

[Taping, Lead-preforming and Packaging](#)

[Available Terminals for Snap-in and Screw Mount Type](#)