

## Line up

Series	Features	Small size/low profile	Large capacitance	Low ESR	For automotive	High voltage	Guaranteed at 125 °C	Category temperature range (°C)	Rated voltage (V.DC)	ESR (mΩ)	Capacitance (μF)	Size code	Size (mm)		
													L	W	H
TPU	Small size Low profile Face down terminal	●						-55 to 85	2.5 to 10	150 to 300	4.7 to 100	S09	2.0	1.25	0.9
								-55 to 85	6.3	100	150	B09	3.5	2.8	0.9
TPH	Small size Low profile Face down terminal	●		●				-55 to 85	6.3 to 10	100 to 150	33 to 100	A09	3.2	1.6	0.9
								-55 to 105	2.5 to 6.3	150	47 to 100	A09	3.2	1.6	0.9
								-55 to 85	2.5 to 6.3	70	100 to 220	A14	3.2	1.6	1.4
TPG	Small size Low profile Large capacitance	●	●					-55 to 105	2.5 to 12.5	35 to 70	33 to 220	B1G	3.5	2.8	1.1
								-55 to 105	2.5 to 6.3	30 to 70	150 to 220	B15G	3.5	2.8	1.4
TPSF	Low ESR / Small size Large capacitance Face down terminal	●	●	●				-55 to 105	2.0 to 2.5	6 to 9	270	B2S	3.5	2.8	1.9
TPE	Low ESR				●			-55 to 105	2.0 to 10	11 to 35	47 to 470	B2	3.5	2.8	1.9
								-55 to 105	6.3	35	470	D15E	7.3	4.3	1.4
								-55 to 105	2.5 to 10	7 to 25	68 to 470	D2E	7.3	4.3	1.8
								-55 to 105	2.5 to 10	9 to 25	220 to 680	D3L	7.3	4.3	2.8
								-55 to 105	2.5 to 10	10 to 25	330 to 1500	D4	7.3	4.3	3.8
TPF	Low ESR Large capacitance	●	●					-55 to 105	2.0	6	220 to 330	D2E	7.3	4.3	1.8
								-55 to 105	2.5 to 10	5 to 15	150 to 680	D3L	7.3	4.3	2.8
								-55 to 105	2.5 to 6.3	5 to 10	470 to 1000	D4	7.3	4.3	3.8
TA	High reliability (for the car electronics)					●		-55 to 105	4.0 to 10	70	47 to 100	B2	3.5	2.8	1.9
								-55 to 105	2.5 to 10	9 to 25	68 to 470	D2E	7.3	4.3	1.8
								-55 to 105	2.5 to 10	15 to 25	150 to 680	D3L	7.3	4.3	2.8
TV	High reliability Guaranteed at 125 °C (for the car electronics)					●	●	-55 to 125	6.3 to 10	25	6 to 150	D2E	7.3	4.3	1.8
								-55 to 125	10	25	150	D3L	7.3	4.3	2.8

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													L	W	H
TQC	High voltage							-55 to 105	16 to 35	90 to 400	3.9 to 33	B2	3.5	2.8	1.9
								-55 to 105	16	40	33	D12	7.3	4.3	1.15
							●	-55 to 105	16 to 25	55 to 70	22 to 47	D15	7.3	4.3	1.4
								-55 to 105	16 to 35	40 to 150	10 to 150	D2	7.3	4.3	1.9
								-55 to 105	16 to 25	50 to 70	68 to 150	D3L	7.3	4.3	2.8
TQS	High voltage Small size / Low profile	●				●		-55 to 105	16 to 35	100 to 150	6.8 to 33	B1S	3.5	2.8	1.1
TPB	Standard							-55 to 105	4.0 to 10	70	33 to 68	B2	3.5	2.8	1.9
								-55 to 105	4.0 to 10	40	150 to 330	D3L	7.3	4.3	2.8
								-55 to 105	6.3 to 10	35 to 40	220 to 470	D4	7.3	4.3	3.8
TPC	Low profile	●						-55 to 105	6.3 to 12.5	55 to 80	10 to 47	B1	3.5	2.8	1.1
								-55 to 105	6.3 to 10	40 to 45	68 to 330	D2	7.3	4.3	1.9
TH	Guaranteed at 125 °C							-55 to 125	2.5 to 6.3	15 to 25	150 to 330	D2E	7.3	4.3	1.8
							●	-55 to 125	2.5 to 10	40 to 45	68 to 220	D2	7.3	4.3	1.9
								-55 to 125	4.0 to 6.3	40	220 to 330	D3L	7.3	4.3	2.8
								-55 to 125	6.3 to 10	35 to 40	220 to 470	D4	7.3	4.3	3.8
TC	Guaranteed at 125 °C							-55 to 125	4.0 to 6.3	15 to 25	100 to 330	D2E	7.3	4.3	1.8
							●	-55 to 125	2.5 to 10	5 to 25	150 to 680	D3L	7.3	4.3	2.8
								-55 to 125	2.5 to 10	5 to 25	330 to 1000	D4	7.3	4.3	3.8