

# CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

## ◆PZ-CAP

	SERIES	PAGE	FEATURES	GENERAL PURPOSE	HIGH VOLTAGE	HIGH TEMP	LOW ESR	LONG LIFE	AEC-Q200	RATED VOLTAGE (Vdc)	CAPACITANCE (μF)	CATEGORY TEMPERATURE RANGE(°C)
V Chip Type	PAV		105°C 3000 hours	●	●		●		●	25~63	22~220	-55~+105
	PCV		125°C 3000 hours			●	●	●	●	25~50	22~150	-55~+125
	<b>UPGRADE</b> PEV		105°C 10000 hours(Hybrid Type)	●	●		●	●	●	25~63	10~330	-55~+105
	<b>UPGRADE</b> PFV		125°C 4000 hours(Hybrid Type)		●	●	●	●	●	25~63	10~330	-55~+125
Radial Lead Type	PZA		105°C 3000 hours	●	●		●		●	25~63	10~220	-55~+105
	PZC		125°C 3000 hours			●	●	●	●	25~50	22~150	-55~+125
	PZE		105°C 10000 hours(Hybrid Type)	●	●		●	●	●	25~63	33~330	-55~+105
	PZF		125°C 4000 hours(Hybrid Type)		●	●	●	●	●	25~63	33~330	-55~+125

# ALUMINUM ELECTROLYTIC CAPACITORS

## CHIP ALUMINUM SOLID ELECTROLYTIC CAPACITORS

	SERIES	PAGE	FEATURES	GENERAL PURPOSE	MINIATURIZED	HIGH TEMP	LOW IMPEDANCE	LONG LIFE	AEC-Q200	RATED VOLTAGE (Vdc)	CAPACITANCE (μF)	CATEGORY TEMPERATURE RANGE(°C)	
縦形チップ形 V Chip Type	SEV		85°C Standard	●					●	4~100	0.47~10000	-40~+85	
	SKV		105°C Standard(1000 hours)	●						6.3~50	0.47~1000	-55~+105	
	<b>UPGRADE</b> SGV		105°C Standard(2000~5000 hours)	●					●	6.3~50 6.3, 100 160~450	0.47~6800	-55~+105 -40~+105 -25~+105	
	JGV		105°C Standard, High Temperature Reflow	●					●	6.3~50	0.47~1000	-55~+105	
	SJV		105°C 3000 hours		●			●		6.3~50	0.47~220	-40~+105	
	SLV		105°C 5000 hours		●			●		6.3~50	0.47~100	-40~+105	
	SZV	※	105°C Low Impedance		●		●				6.3~35	1~100	-55~+105
	TZV		105°C Low Impedance		●		●		●	6.3~50	4.7~1000	-55~+105	
	JZV		105°C Low Impedance, High Temperature Reflow		●		●		●	6.3~35	4.7~1000	-55~+105	
	TKV		105°C Low ESR		●		●		●	6.3~35	33~1800	-55~+105	
	<b>UPGRADE</b> TPV		105°C Low ESR, Miniaturized		●		●		●	6.3~35	68~2200	-55~+105	
	<b>UPGRADE</b> TLV		105°C 5000 hours, Low Impedance		●		●	●	●	6.3~63	33~10000	-55~+105	
	TRV		105°C 5000~10000 hours, Low Impedance		●		●	●		6.3~50	10~8200	-40~+105	
	TXV		125°C Low ESR(2000 hours)		●	●	●	●	●	10~35	22~470	-40~+125	
	THV		125°C Low ESR(3000 hours)		●	●	●	●	●	16~50	10~330	-40~+125	
	<b>UPGRADE</b> TGV		125°C ESR Standard after endurance test		●	●	●	●	●	16~50	33~3300	-40~+125	
	HRV	※	125°C 3000 hours (Automotive only)		●	●	●	●	●	25~50	510~5100	-40~+125	
	<b>UPGRADE</b> HGV	※	135°C 3000 hours (Automotive only)		●	●	●	●	●	25~50	510~5600	-40~+135	

:Recommended Series

AEC-Q200. For further details, please contact our sales offices.

※Please contact our sales offices.

# ALUMINUM ELECTROLYTIC CAPACITORS

## ◆RADIAL LEAD ALUMINUM ELECTROLYTIC CAPACITORS

	SERIES	PAGE	FEATURES	GENERAL PURPOSE	MINIATURIZED	LOW PROFILE	HIGH RIPPLE	LONG LIFE	AEC-Q200	RATED VOLTAGE (Vdc)	CAPACITANCE (μF)	CATEGORY TEMPERATURE RANGE(°C)
General Purpose	PK		85°C Standard	●	●					6.3~400 450	0.47~33000	-40~+85 -25~+85
	PX		105°C Standard	●	●					6.3~100 160~400 450		0.47~33000
Low Profile	WA		85°C 9mm~25mm Height		●	●				6.3~250 350~450	1.5~10000	-40~+85 -25~+85
	WXA		105°C 9mm~25mm Height		●	●			●	6.3~50 160~250 350~450		1.5~10000
	ML		105°C 5mm~9mm Height, Long Life		●	●		●		6.3~50	1~1000	-40~+105
	MS7		85°C 7mm Height	●	●	●				4~63	1~470	-40~+85
	MS5		85°C 5mm Height	●	●	●				4~50	0.47~470	-40~+85
	MH7		105°C 7mm Height	●	●	●				6.3~50	1~100	-40~+105
	MH5		105°C 5mm Height	●	●	●				6.3~50	0.47~100	-40~+105
Miniaturized	AX		105°C Ultra Miniaturized		●	●	●			6.3~35 400	4.7~1200	-40~+105
Low Impedance	YXF		105°C Long Life	●	●		●	●		6.3~100	1~15000	-40~+105
	YXG		105°C Low Impedance		●		●	●		6.3~100	6.8~18000	-40~+105
	YXH		105°C Long Life, Low Impedance		●		●	●		6.3~100	6.8~18000	-40~+105
	YXJ		105°C Miniaturized, Long Life	●	●		●	●		6.3~100	1~15000	-40~+105
	ZL		105°C High Ripple Current, Low Impedance		●		●			6.3~100	5.6~6800	-40~+105
	ZLH		105°C Miniaturized, Long Life, Low Impedance		●		●	●		6.3~100	8.2~8200	-40~+105
	ZLS		105°C Miniaturized, Low Impedance		●		●	●		10~35	220~5600	-40~+105
	ZLQ		105°C Ultra Miniaturized, Low Impedance		●		●	●		6.3~35	56~12000	-40~+105
	ZLJ		105°C High Ripple Current, Long Life, Low Impedance		●		●	●		6.3~100	8.2~8200	-40~+105
	ZLK		105°C Ultra High Ripple Current, Low Impedance		●		●			10~35	220~1800	-40~+105
	ZLG		105°C Ultra Low Impedance				●			6.3~35	4.7~3900	-40~+105
	ZT		125°C Low Impedance				●	●		10~35	22~2200	-40~+125
	JXF		105°C Low Impedance, Wide Temperature Range		●		●	●	●	16~63	120~10000	-55~+105
Long Life	CFX		105°C 5000 hours	●	●			●		160~450	2.2~100	-25~+105
	CGX		105°C 8000 hours	●	●			●		200, 400	1.5~27	-25~+105
	BXC		105°C 8000~12000 hours		●			●		160~500	1~220	-25~+105
	BXF		※ 105°C High Ripple Current, Long Life, 20mm Max		●	●		●		160~450	10~220	-25~+105
	LLE		105°C 12000~20000 hours		●			●		160~400 450	1~68	-40~+105 -25~+105
	LEX		125°C 4000~5000 hours		●			●		160~400	1~33	-40~+125
	YXM		105°C 10000 hours, Miniaturized		●			●		10~100	1~330	-40~+105
High Temperature	RXF		125°C 2000~3000hours, Miniaturized		●		●	●	●	25~63	240~7500	-55~+125
	RX30		130°C 1000~4000 hours					●	●	10~100 200~400	1~4700	-40~+130 -25~+130
	RX50		150°C 1000 hours					●	●	10~63	47~1000	-40~+150
	HBX		125°C 3000 hours <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">Automotive only</span>		●		●	●	●	250, 275	30~56	-40~+125
	RXA		125°C 2000~3000hours <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">Automotive only</span>		●		●	●	●	25~70	240~5600	-40~+125
	HRX		125°C 3000 hours <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">Automotive only</span>		●		●	●	●	25~70	240~5100	-40~+135
HGX		135°C 3000 hours <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">Automotive only</span>		●		●	●	●	25~70	240~6800	-40~+135	
Low Leakage Current	TWL		85°C Low Leakage Current		●					6.3~50	1~2200	-40~+85
Bi-Polar	NA		85°C Standard	●	●					6.3~100	1~1000	-40~+85
	NXA		105°C Standard	●	●					6.3~50	1~1000	-55~+105
	NW7		85°C 7mm Height	●	●	●				6.3~50	0.33~47	-40~+85
	NW5		85°C 5mm Height	●	●	●				6.3~50	0.33~47	-40~+85
For Switching Power Supply	KXW		105°C 2000 hours, Miniaturized	●			●			200~450	18~560	-25~+105
	QXW		105°C 2000 hours, Ultra Miniaturized		●		●			400~450	12~220	-40~+105
	CXW		105°C 5000 hours, Ultra Miniaturized		●		●	●		400~500	10~220	-40~+105
	TXW		105°C 7000~12000 hours, Miniaturized		●		●	●		35~450	12~1800	-40~+105
	BXW		105°C 10000~12000 hours, Ultra Miniaturized		●		●	●		160~450	10~820	-40~+105
	SAW		105°C Over-Voltage Venting Specification, Miniaturized		●		●			200~450	4.7~270	-25~+105
	SXW		105°C Over-Voltage Venting Specification				●			200, 400	4.7~330	-25~+105
ULW		85°C 8000 hours				●			450~500	47~150	-25~+85	

:Recommended Series  
AEC-Q200. For further details, please contact our sales offices.

# ALUMINUM ELECTROLYTIC CAPACITORS

## ◆LARGE CAN TYPE ALUMINUM ELECTROLYTIC CAPACITORS

	SERIES	PAGE	FEATURES	GENERAL PURPOSE	MINIATURIZED	HIGH RIPPLE	FOR OVER-VOLTAGE VENT TEST	LONG LIFE	RATED VOLTAGE (Vdc)	CAPACITANCE (μF)	CATEGORY TEMPERATURE RANGE (°C)
Snap-in type	USC		85°C Standard	●					10~250	180~82000	-40~+85
									315~450	56~1000	-25~+85
	USG		85°C Standard	●		●			10~250	220~82000	-40~+85
									400~450	68~820	-25~+85
	USH		85°C Miniaturized	●	●	●			400~450	120~1200	-25~+85
	USK		85°C Ultra Miniaturized	●	●	●			400~450	120~1200	-25~+85
	UFG		85°C 4-pin Terminal Type		●	●			350~450	470~2700	-25~+85
	MXC		105°C Standard	●					10~250	220~68000	-40~+105
									315~450	47~820	-25~+105
	MXG		105°C Standard	●		●			10~250	220~68000	-40~+105
									315~500	39~1500	-25~+105
	UPGRADE MXH		105°C Miniaturized	●	●	●			400~550	56~1200	-25~+105
	UPGRADE MXK		105°C Ultra Miniaturized	●	●	●			400~450	120~1200	-25~+105
	HXG		105°C High Ripple Current, Miniaturized		●	●			400~450	56~680	-25~+105
	FXC		105°C Flame Retardant, Over-Voltage Venting Specification				●		400~450	※	-25~+105
	VXG		105°C 5000 hours			●		●	10~100	560~56000	-40~+105
									200~500	47~2200	-25~+105
	VXH		105°C 5000 hours, Miniaturized		●	●		●	200~450	100~2700	-25~+105
	VXK		105°C 5000 hours, Ultra Miniaturized		●	●		●	400~450	120~1200	-25~+105
	VXR		105°C 7000 hours			●		●	160~450	39~2200	-25~+105
NXG		105°C 10000 hours					●	400~450	120~560	-25~+105	
VXS		105°C Charge-Discharge Specification					●	315~450	82~1200	-25~+105	
KXF		105°C 20mm Height						10~100	330~10000	-40~+105	
								160~450	39~820	-25~+105	
HFG		105°C 4-pin Terminal Type		●	●			350~450	390~2700	-25~+105	
SXC		105°C Over-Voltage Venting Specification				●		200, 400	27~1500	-25~+105	
UPGRADE SXG		105°C Over-Voltage Venting Specification, Miniaturized		●		●		200~450	39~1200	-25~+105	
Screw terminal type	LSQ		85°C 3000 hours	●					10~100	2200~680000	-40~+85
									160~450	270~33000	-25~+85
	LSU		85°C 5000 hours	●			●	350~580	1200~18000	-25~+85	
	LSY		85°C 5000 hours, Miniaturized		●		●	350~500	1500~22000	-25~+85	
	LSA		85°C 20000 hours, High Ripple Current			●	●	350~450	1800~15000	-25~+85	
	NEW LUR		85°C 5000 hours, Low Thermal Resistance			●	●	350~500	1800~22000	-25~+85	
	LSW		105°C 3000 hours	●					10~100	2200~680000	-40~+105
									160~400	220~22000	-25~+105
	LSG		105°C 5000 hours	●			●	350~450	1000~18000	-25~+105	
	LSH		105°C 5000 hours, Miniaturized		●		●	350~450	1500~22000	-25~+105	
LSC		105°C 5000 hours, High Ripple Current			●	●	350~450	1800~15000	-25~+105		
NEW LHR		105°C 5000 hours, Low Thermal Resistance			●	●	350~450	1800~18000	-25~+105		

## ◆PHOTO FLASH ALUMINUM ELECTROLYTIC CAPACITORS

SERIES	PAGE	FEATURES	RATED VOLTAGE (Vdc)	CAPACITANCE (μF)	CATEGORY TEMPERATURE RANGE (°C)
FK		Standard Lug Terminal	330	150~1500	-20~+55
			360	150~1300	
FKX		Miniaturized Lug Terminal	330	150~1500	-20~+55
SF		High Voltage Lug Terminal	450	150~1000	-20~+55
FW		Radial Lead Terminal	330	10~300	-20~+60
CDF		For Rapid Strobe Flash	360	60~400	-25~+70
			450	40~300	

:Recommended Series

## FILM CAPACITORS

	SERIES	PAGE	FEATURES	RATED VOLTAGE (V)	CAPACITANCE (μF)	CATEGORY TEMPERATURE RANGE(°C)
Metallized Polypropylene Film Capacitors	MPB		Standard	DC250~630	0.01~4.7	-40~+105
	MPK		Miniaturized	DC450~800	0.1~4.7	-40~+105 ※※(+85)
	MPN		Ultra Miniaturized	DC450, 630	0.1~4.7	-40~+85
	MPH		Low D.F., Low ESR	DC100~800	0.047~22	-40~+105
	MPE		High Voltage	DC800~1600 (AC250~700)	0.001~0.56	-40~+105
	MPKA		Across-the-line, Miniaturized	AC125, 275	0.01~1	-40~+85
	PCK		High Ripple Current, Low Buzz	DC450~2000	0.01~33	-40~+105 ※※(+85)
Metallized Polyester Film Capacitors	MMB		Standard	DC100~630	0.01~10	-40~+105 ※※(+85)
	MMG		Miniaturized	DC250~630	0.056~10	-40~+105 ※※(+85)
	MMK		High Ripple Current	DC100~630	0.18~22	-40~+105 ※※(+85)
	MMBA		Across-the-line	AC125, 250	0.01~1	-40~+85
Polyester Film Capacitors	F2D		Standard	DC50~200	0.00047~0.47	-40~+105 ※※(+85)
Polypropylene Film Capacitors	P2S		Low D.F.	DC100, 250	0.00022~0.1	-20~+85 ※※(+70)
PPS Film Capacitors	H2D		Heat-resisting	DC50, 100	0.00047~0.47	-55~+125
CR-Surge Absorber	MCRA-DP		CR-Network	AC125, 250	C:0.033, 0.1 R:47, 120Ω	-25~+85
Power Film Capacitors	MPC		Low ESR, High Ripple Current	DC630~1600	0.1~2.2	-40~+85
	MPCA		For AC line	AC220~500	1~100	-25~+70
	HVC		Low ESL	DC450	500, 800	-40~+105
	MPX		Stud Mount Type	DC900~1300	200~1600	-20~+70
	MPXA		Stud Mount Type (AC line)	AC220~500	15~200	-20~+70

## POLYMER MULTI-LAYER CAPACITORS

	SERIES	PAGE	FEATURES	RATED VOLTAGE (Vdc)	CAPACITANCE (μF)	CATEGORY TEMPERATURE RANGE(°C)
Stacking Type	MU		Standard (Reflow/Flow)	16~100	0.0001~22	-55~+125
	MS		Humidity Resistant (Reflow/Flow)	10~50	0.001~2.2	-55~+125
	MR		LW reversal structure, Low ESL (Reflow/Flow)	16~100	0.01~6.8	-55~+125
	ST		Standard (Reflow)	16~100	0.001~22	-55~+125
Radial Lead Type	LDT		Standard	10~35	4.7~47	-55~+105

## ELECTRIC DOUBLE LAYER CAPACITORS

	SERIES	PAGE	FEATURES	RATED VOLTAGE (Vdc)	CAPACITANCE (F)	CATEGORY TEMPERATURE RANGE(°C)
Radial Lead Type	DMA		Standard	2.5	50~190	-25~+60
	DMB		70°C	2.5	2.2~150	-25~+70
	DMC		2.7, 3V	2.7, 3	1~10	-25~+70 (+60)
	DMG		Low Resistance	2.5, 2.7	1~30	-25~+70
	DMH		85°C	2.3	2~10	-25~+85

:Recommended Series

※※Derate the voltage as shown in the figures at "CAUTION FOR PROPER USE OF FILM CAPACITOR" when using the capacitor beyond the rated temperature ( ).