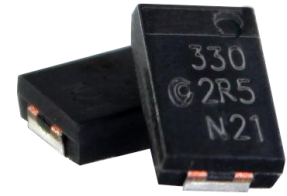


ACTS Series

- Feature: Low ESR, Surface mounting, Reduced height, Wide temperature range
- Suitable for DC-DC converters, voltage regulators and decoupling applications
- Rate voltage: 2V to 25V dc
- Endurance: 1000hrs at 125°C
- RoHS Compliant



Specifications			
Item	Conditions	Characteristics	
Category Temperature Range		-55 to +125 °C	
Rated Voltage Range		2V to 25V dc	
Capacitance Tolerance	at 20°C, 120Hz	±20 % (M) ; Y : +10 ~ -35% ; K : ±10 %	
Leakage Current	at 20°C after 2 minutes	$I \leq 0.1CV$ (2 V.DC to 2.5 V.DC) $I \leq 0.3CV$ (10 V.DC to 35V.DC) I : Leakage Current(μA), C : Rated Capacitance(μF), V : Rated Voltage(V)	
Surge Voltage	15 to +35°C	Rated voltage × 1.25 (2 V.DC to 16 V.DC)	
Dissipation Factor (tanδ)	at 20°C , 120Hz	≤ 0.1	
Endurance	125°C, rated voltage applied, 1000 hrs.	Appearance	No significant damage
		Capacitance Change	±20% of the initial value
		Dissipation Factor	≤ 200% of the initial specified value
		Leakage Current	within the initial specified value
Damp Heat, Steady State	60°C, 90 to 95%RH, 500 hrs.	Appearance	No significant damage
		Capacitance Change	(2V.DC to 2.5 V.DC) +70%, -20% of the initial value (6.3V.DC) +50%, -20% of the initial value (10 V.DC to 35 V.DC) +60%, -20% of the initial value
		Dissipation Factor	≤ 200% of the initial specified value
		Leakage Current	2 V.DC to 6.3 V.DC within the initial specified value 10 V.DC to 35 V.DC ≤ 300% of the initial specified value
Surge Voltage	The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages, 125% rated voltage, at 15~35°C for 30 seconds through a protective resistor(R=1KΩ)and discharge for 5min 30 seconds.	Appearance	No significant damage
		Capacitance Change	±10% of the initial value
		Dissipation Factor	within the initial specified value
		Leakage Current	within the initial specified value
Solderability	Pb-free solder Around 25% rosin melted ethanol or isopropylalcohol Temperature : 245 ± 5 °C Immersing time : 2 ± 0.5 s	More than 95% of outer terminal surface to be covered	
Resistance to Solvents	Solvent : isopropylalcohol Immersing time : 30 ± 5 s Room temperature	No significant damage and marking readable	

ACTS Series

Standard Ratings

WV(VDC)		Cap (μF)@120Hz	tanδ Max. @120Hz	Leakage Current Max. (μA)	ESR Max. (mΩ) @100kHz	Ripple Current (A r.m.s) @100kHz	Part No.
105°C	125°C						
2	1.6	560	0.1	112	4.5	8.5	ACTS2R0S561E04
		560	0.1	112	6	7.5	ACTS2R0S561E06
16	16	68	0.1	326.4	40	3.2	ACTS160S680E40
		100	0.1	326.4	40	3.2	ACTS160S101E40
25	25	15	0.1	112.5	40	3.2	ACTS250S150E40
		22	0.1	165	40	3.2	ACTS250S220E40

Temperature Compensation Multipliers for Ripple Current				
Temperature	≤ 45°C	45°C < T ≤ 85°C	85°C < T ≤ 105°C	125°C < T
2 V.DC to 2.5 V.DC	1.0	0.7	0.25	0.25
16 V.DC to 25 V.DC	1.0	0.8	0.5	0.25

PRODUCT IDENTIFICATION

ACTS	160	S	680	E40	☐
Product	Rated Voltage	Case Height	Capacitance	ESR	Suffix for special code
	160: 16V	S:1.9mm	680=68μF	E40: 40mΩ	Y: Capacitance +10 ~ -35%
					K: Capacitance ±10%
					Blank space: Capacitance ±20 %

DIMENSIONS AND MARKING

Case size	L	WA	WB	H	P
S	7.3±0.3	4.3±0.3	2.4±0.2	1.9±0.2	1.3±0.2

