

Preliminary

Type: EC420μ1100d085136JF6

Part-No: 1020089

Technical data

Nominal capacitance	C_N	420 μF ± 5%
Nominal voltage dc	U_{NDC}	1100 V
Nominal voltage ac @ 50 Hz	U_{NAC}	250 V
Surge voltage	U_S	1650 V
Energy	W_N	254 Ws
Max. AC current @ $T_{case}=30^\circ\text{C}/1\text{ kHz}$	I_{RMS}	65 A
Max. Peak periodic current	$\hat{I}_{periodic}$	5200 A
Max. Pulse rise time	$\Delta U/\Delta t$	12,4 V/μs
Dissipation factor @ 1 kHz	$\tan\delta$	<150 × 10 ⁻⁴
Equivalent series resistance @ 1 kHz	R_{ESR}	<3,5 mΩ
Self inductance	L_E	<30 nH

Max. Power loss @ $\vartheta_{hotspot} 85^\circ\text{C} / 1\text{ kHz}$

@ ϑ_{case}	I	P_{max}
40°C	58 A	14 W
50°C	51 A	11 W
60°C	43 A	7,7 W
70°C	33 A	4,7 W

U_N -Derating

@ ϑ_{case}	U_{Nmax}
70°C	$U_N \times 1$
75°C	$U_N \times 0,9$
80°C	$U_N \times 0,8$
85°C	$U_N \times 0,7$

Min. Operating temperature	ϑ_{min}	-40 °C
Max. Operating temperature ($I_R=0$)	ϑ_{max}	+85 °C
Storage temperature	ϑ_{Lager}	-40...+85 °C
Thermal resistance (case hotspot)	R_{th}	2 K/W
Climatic category DIN IEC 68/1		40/085/21

Test voltage between terminals	U_{TT}	1650 V dc / 2s
Test voltage between terminal/case	U_{TC}	4000 V ac / 10s

Life expectancy @ hot spot 60°C		100 000 h
Failure rate @ 0,5x $U_N/40^\circ\text{C}$ (MIL-HDBK-217F)		48 FIT

General data

Creepage	21 mm
Standard	IEC1071
Coating	aluminium can
Resin	Polyurethane UL 94V-0 listed
Cap	Polyamide UL 94V-0 listed
Dielectric	Polypropylene
Terminals	M6x9 brass nickel plated, max. torque 6 Nm
Weight	approx. 0,9 kg
RoHS compliant	

Dimensions

Diameter	Ø	88,5	±1 mm
Length	L	136,0	±0,5 mm
Pitch	RM	32,0	±1 mm

