

Preliminary

Type: EC175µ1800d116136KM8

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Technical data

Nominal capacitance	C_N	175 µF ± 10 %
Nominal voltage dc	U_{NDC}	1800 V
Surge voltage	U_S	2700 V
Energy	W_N	283,5 Ws
Max. AC current @ $T_{case}=30^\circ\text{C}/10\text{ kHz}$	I_{RMS}	80,3 A
Max. Peak periodic current	$\hat{I}_{Periodic}$	4725 A
Max. Pulse rise time	$\Delta U/\Delta t$	27 V/µs
Dissipation factor @ 1 kHz	$\tan\delta$	35 x10 ⁻⁴
Series resistance @ 10 kHz	R_{ESR}	<3 mΩ
Self inductance	L_E	<100 nH

Dimensions

Diameter	Ø	116	+1 mm
Length	L	136	±2 mm
Pitch	RM	50	±0,5 mm

Max. Power loss @ $\vartheta_{hotspot} 85^\circ\text{C}$ / nat. convection / 10kHz

@ ϑ_{case}	I	P _{max}
40 °C	73 A	12,5 W
50 °C	64 A	9,7 W
60 °C	54 A	6,9 W
70 °C	42 A	4,2 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}	+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}	2700 V dc / 2s
Test voltage between terminal/case	U_{TC}	4600 V ac / 10s

Life expectancy @ hot spot 60°C 100000 h

General data

Coating	Alu can with resin sealing Flame retardant according to UL 94V-0
Dielectric	polypropylene
Terminals	brass nickel plated, max. torque 6 NmØ 0,3 mm
Weight	approx. 1,725 kg
RoHS compliant	

