

Order code: DTIC 500-50.0 cv5 (K)
Applications: DC capacitor for general use in power electronics
 also for nonsinusoidal voltages and currents
Standard: acc. to IEC 61071

Characteristics

Rated capacitance	C_N	50 μF ±10%
Rated d.c. voltage	U_{N DC}	5000 V d.c.
Max. ripple voltage	U_r	800 V
Non-recurrent surge voltage	u_s	7500 V
Rated energy	W_N	625 Ws
Maximum current	I_{max}	80 A
Maximum peak current	î	4 kA
Maximum surge current	I_s	12 kA
Series resistance	R_s	1.5 mΩ
Tangent of the loss angle	tanδ_o	2 x10 ⁻⁴
Self discharge time const.	C x R_{is}	5000 s
Self inductance	L_e	240 nH

Thermal conditions

Lowest operating temperature	Θ_{min}	-40 °C
Maximum operating temperature	Θ_{max}	70 °C
Thermal resistance	R_{th}	1.2 K/W
Storage temperature	Θ_{storage}	-40..+85 °C

Failure rate

reference service life		50 FIT*
at Θ _{hotspot}		100000 h
		<70 °C

* See FIT-RATE diagram on pg.4

Test data

Voltage test between terminals	U_{BB}	7500 V /10s
A.C. voltage test terminal/container	U_{BG}	12000 V AC/10s

Dimensions

Rated diameter	D₁	116 (±1) mm
Maximum diameter	D₂	120 (±0,5) mm
Length of the case	L₁	320 (±2) mm
Length of the terminals	L₂	55 (+5) mm
distance termials	a	38 (±1) mm
Terminal		M10 x 20 mm
base mounting stud	G_BxL_B	M12x16 (+1) mm
Clearance in air	L	17 mm
Creepage distance	K	54 mm

Approx weight

4.1 kg

Mechanical characteristics

Construction	metallized polypropylene capacitor, selfhealing
Protection	overpressure disconnecter
Terminals	Screw terminals on ceramic insulators
Impregnant	liquid impregnants. non PCB
Fire load	164 MJ

outline drawing

