

Type ST 55 °C Strobe-Flash, Long-Life, 360 & 450 V Aluminum



High Energy, Long-Life

Rugged Type ST capacitors can withstand more than 30 million full discharges in typical strobe-lamp applications—that's more than ten years' operation in emergency vehicles. This exceptional life capability is also available in screw-terminal and other case styles and other capacitance values.

The ST's magic is its ability to handle the spectrum of currents caused by full discharge at 1 Hz and faster rates. Because discharge energy is at frequencies from less than a hertz to thousands of hertz, power loss and heating are not predicted by the ESR at 120 Hz, and the open-structure anode foil of Type ST excels at low loss over the full spectrum.

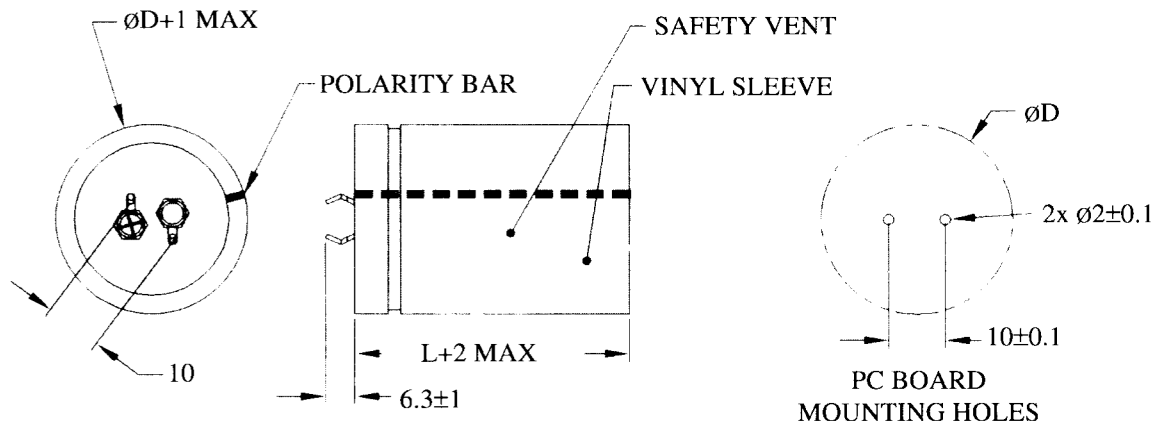
Highlights

- Tested to More than 10 Million Flashes
- More than 30 Million Flashes Typical Life
- Snapmount or Solder-Lug Terminals

Specifications

Operating Temperature:	-40 °C to +55 °C
Rated Voltage:	360 or 450 Vdc
Capacitance:	30 to 300 μF -10% +20%
Leakage Current:	0.01 CV +20 μA at 25 °C
Cold Impedance:	-20 °C multiplier of 25 °C $Z \leq 2$
Dissipation Factor:	7% maximum @ 25 °C & 120 Hz
Discharge Life:	10 million discharges at 1 s interval, xenon flash tube 0.7 to 1Ω Δ capacitance ±10%, ESR 150% of limit, DCL 150% of limit
Shelf Life:	500 h @ +55 °C, Δ capacitance ±10% ESR 150% of limit, DCL 150% of limit
Vibration:	10 to 55 Hz; 0.06" and 10 g max, 6 h vertical, 2 h each, 2 other planes

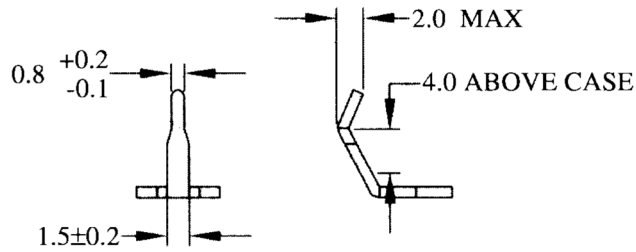
Outline Drawings



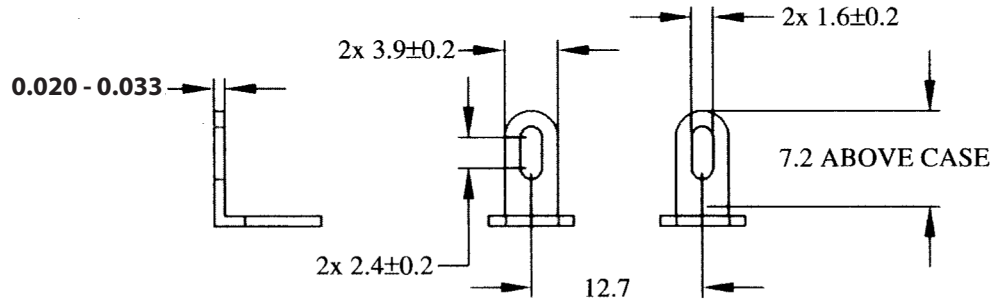
Type ST 55 °C Strobe-Flash, Long-Life, 360 & 450 V Aluminum

Terminal Drawings

Snap-In Terminals



Solder-Lug Terminals



Case Dimensions

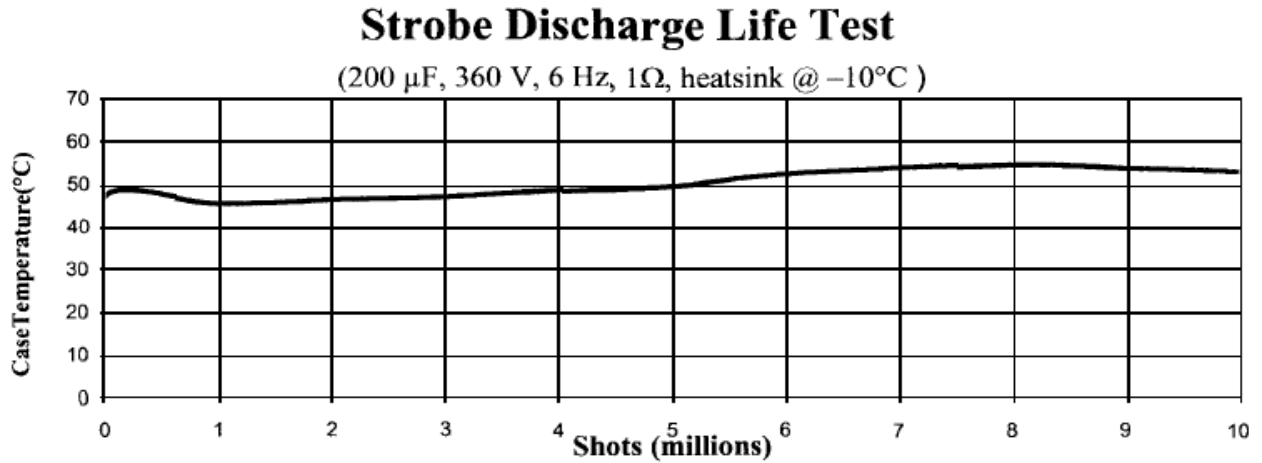
Case Code	Diam.(D) Max.		Length (L) Max.		Terminal Spacing (S)		Typical Weight
	mm	Inches	mm	Inches	mm	Inches	
H04	22	0.87	40	1.57	8.5	0.33	24
J01	25	0.98	25	0.98	10.0	0.39	20
J02	25	0.98	30	1.18	10.0	0.39	24
J03	25	0.98	35	1.38	10.0	0.39	27
J04	25	0.98	40	1.57	10.0	0.39	31
J05	25	0.98	50	1.97	10.0	0.39	38
K03	30	1.18	35	1.38	12.7	0.50	40
K04	30	1.18	40	1.57	12.7	0.50	44
K05	30	1.18	50	1.97	12.7	0.50	53
A05	35	1.38	50	1.97	12.7	0.50	67
A06	35	1.38	63	2.48	12.7	0.50	88

Part Numbering System

ST	121	V	360	J05	2	L
Type	Capacitance	Tolerance	Rated Voltage	Case Code	Insulation	Terminals
	300 = 30 µF 121 = 120 µF	-10 + 20%			2 = PVC	blank = snap-in L = solder lugs

Type ST 55 °C Strobe-Flash, Long-Life, 360 & 450 V Aluminum

Typical Performance Curves



Ratings

RoHS Compliant

Cap. (μ F)	Catalog Part Number	ESR Max. Ω		Diameter		Length	
		+25 °C 120 Hz		(mm)	(in)	(mm)	(in)
360 Vdc (390 Vdc Surge)							
48	ST480V360J012	1.92		25	0.98	25	0.98
60	ST600V360J022	1.54		25	0.98	30	1.18
80	ST800V360J032	1.15		25	0.98	35	1.38
100	ST101V360J042	0.92		25	0.98	40	1.57
120	ST121V360K032	0.77		30	1.18	35	1.38
150	ST151V360J052	0.61		25	0.98	50	1.97
200	ST201V360K052	0.46		30	1.18	50	1.97
250	ST251V360A052	0.37		35	1.38	50	1.97
300	ST301V360A062	0.31		35	1.38	63	2.48
450 Vdc (500 Vdc Surge)							
30	ST300V450J012	3.07		25	0.98	25	0.98
40	ST400V450H042	2.30		22	0.87	40	1.57
50	ST500V450J032	1.84		25	0.98	35	1.38
60	ST600V450J042	1.54		25	0.98	40	1.57
80	ST800V450J052	1.15		25	0.98	50	1.97
100	ST101V450K042	1.08		30	1.18	40	1.57
120	ST121V450K052	0.77		30	1.18	50	1.97
150	ST151V450A052	0.61		35	1.38	50	1.97

Notice and Disclaimer: All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.