CANTHERM

Supplying high-quality bimetal and thermal sensor products.

Thermal Cut-Offs
SDJ1/SDJ2



GENERAL

Our Thermal Cut-Offs (Organic Thermal Element Type) are used to prevent fires caused by abnormal heat generation from circuits and other heat producing electrical products. They are a non-resettable thermal fuse which open electrical contacts when temperatures exceed the specified level.

OPERATING PRINCIPLE

When the ambient temperature rises to the functioning temperature, the thermal element melts and the springs move the contact away and open the circuit permanently.

APPLICATIONS

- Electric home appliances and heating devices
- Coil-winding products and power supplies
- Office equipment and telecommunication devices
- Automobiles & other electronic components

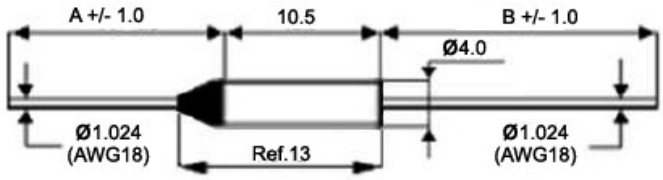
CAUTIONS

- Bends in leads should be at least 3mm from the body of the TCO.
- Extreme caution must be used while soldering, use a heatsink and avoid heating above Tf -24°C.
- The metal portion of the TCO is electrically live and may require insulation.
- Do not use in liquids or poisonous gasses such as sulfuric acid or nitrous oxide.
- Do not connect heater directly to the cutoff.

APPROVALS

UL & cUL: E117626
VDE: 115369, 116219
PSE: JET2926-32001-1001-1009
CCC: 2003010205079617
EK: HH05009-2004A-2019A

DIMENSIONS (mm)



Type	A (L1)	B (L2)
Standard	25.4	35.0
Long	35.0	35.0
Option	Custom made	Custom Made

RoHS compliant product
EU directive 2002/95/EC

CANTHERM
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Part No.	UL/cUL	VDE	CCC	PSE	T_F (°C)	T_H (°C)
DF50S	-	-	-	O	50	30
DF57S	-	-	-	O	57	37
DF66S	O	O	O	O	66	42
DF72S	O	O	O	O	72	50
DF77S	O	O	O	O	77	55
DF84S	O	O	O	O	84	60
DF91S	O	O	O	O	91	67
DF98S	O	O	O	O	96	76
DF100S	O	O	O	O	100	78
DF104S	O	O	O	O	104	80
DF110S	O	O	O	O	110	86
DF115S	-	-	-	O	115	95
DF119S	O	O	O	O	119	95
DF121S	-	-	-	O	121	95
DF128S	O	O	O	O	128	106
DF133S	-	-	-	O	133	117
DF139S	O	-	-	O	139	117
DF141S	O	O	O	O	141	117
DF144S	O	O	O	O	144	120
DF152S	O	O	O	O	152	128
DF167S	O	O	O	O	167	142
DF169S	-	-	-	O	169	145
DF170S	O	O	O	O	170	146
DF179S	-	-	-	O	179	155
DF184S	O	O	O	O	184	160
DF192S	O	O	O	O	192	162
DF198S	-	-	-	O	198	162
DF205S	-	-	-	O	205	181
DF216S	-	O	O	O	216	191
DF222S	-	-	-	O	222	195
DF228S	O	O	O	O	228	193
DF240S	O	O	O	O	240	200
DF260S	-	-	-	-	260	220
DF280S	-	-	-	-	280	230

T_F = Functioning Temperature T_H = Holding Temperature

Rated Voltage & Current Max.	
EK	250V/15A
UL/cUL	125V/15A
	250V/10A
	250V/16A
VDE	250V/15A
PSE	125V/15A
	250V/15A
CCC	250V/15A

Before fusing off



After fusing off



O	APPROVED
–	ON APPLYING
TOLERANCE: +0°C, -5°C	

CANTHERM

DETERMINE THE PROPER SERIES

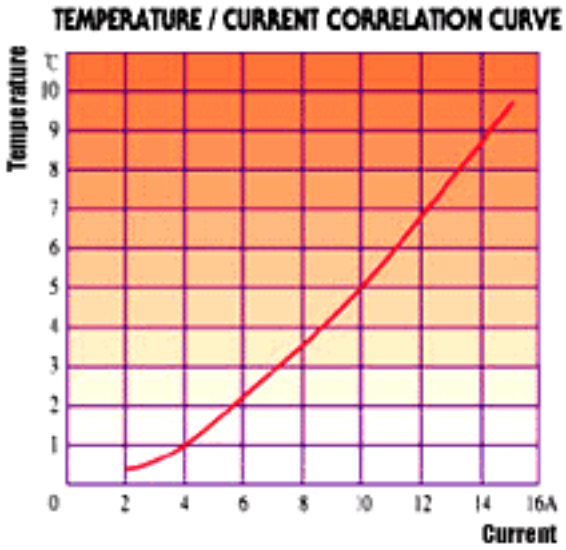
• **Tp** : The highest temperature of the product to which a cutoff is to be attached.

• **Th** : The safe temperature range for use of the cutoff.

• **Ts** : 24ºC (Tp-Th) (Apply 35ºC for Ts value when Tp is higher than 170ºC.)

• **To** : The heating temperature caused by electrical load (Please refer temperature / current correlation curve)

• **+a** :
1. Self heating of lead wire
2. Structure of ventilation or airtightness
3. Location of connecting terminal
4. Thickness of insulated covering material
5. Best condition value considering electric voltage changes



Tp + Ts + To +a = Applicable Temperature

SAFE TEMPERATURE RANGE

• The increasing temperature by remaining heat in the cutoff after melting is required to remain below Tm.
• The temperature of the area where a cutoff will be attached should not reach over Th under normal usage conditions.

