

SCD 242...

PLASTIC CASE

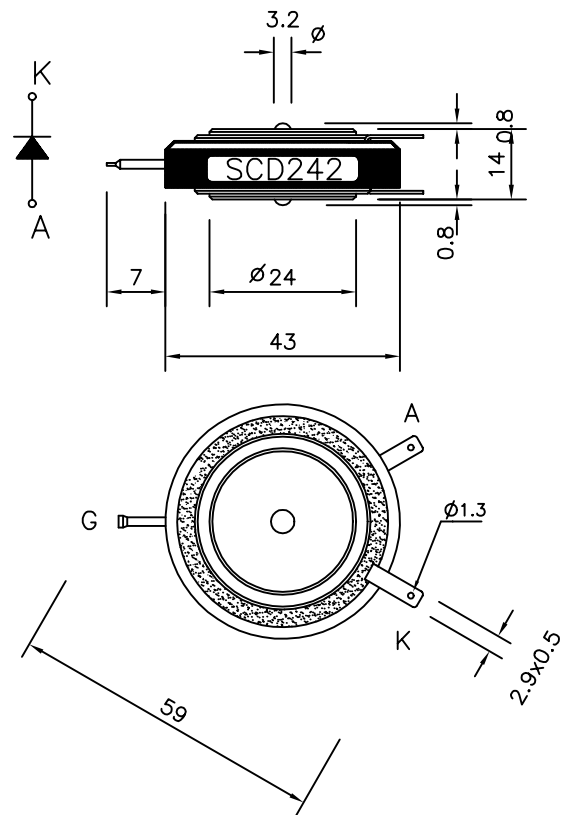
HIGH POWER THYRISTOR
830A (AV)
Hockey Puk version

Features

- ⊕ High surge current
- ⊕ A . K – AVAILABLE
- ⊕ Diffused junction

Typical Applications

- ⊕ Welding
- ⊕ Power supplies
- ⊕ Machine tool controls
- ⊕ High power drive



SCD242 .-- .-

Voltage Code	V_{DRM}/V_{DRM} , max. repetitive peak and off-state voltage	Internal SCOMES Reference
16	1600 V	
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ELECTRICAL SPECIFICATIONS

⊕ BLOCKING

Symbol	Characteristic	Conditions	T _J	Value	Units
V _{RRM}	Repetitive peak reverse voltage		175	1600÷2000	V
V _{RSM}	Non-repetitive peak reverse voltage		175	1700	V
I _{RRM}	Repetitive peak reverse current	V=VRRM	175	50	mA

⊕ CONDUCTING

Symbol	Characteristic	Conditions	T _J	Value	Units
I _{F(AV)}	Mean forward current	180° sin. 50Hz, Th=55°C double side cooled		830	A
I _{F(AV)}	Mean forward current	180° sin. 50Hz, Th=85°C double side cooled		805	A
I _{FSM}	Surge forward current	Sine wave, 10ms without reverse voltage	175	6.5	kA
I ² t	I ² t	Sine wave, 10ms without reverse voltage	175	211x1E3	Ås
V _{FM}	Forward voltage	Forward current=1000A	25	1.4	V
V _{F(T0)}	Treshold voltage		175	0.70	V
rF	Forward slope resistance		175	0.400	mohm

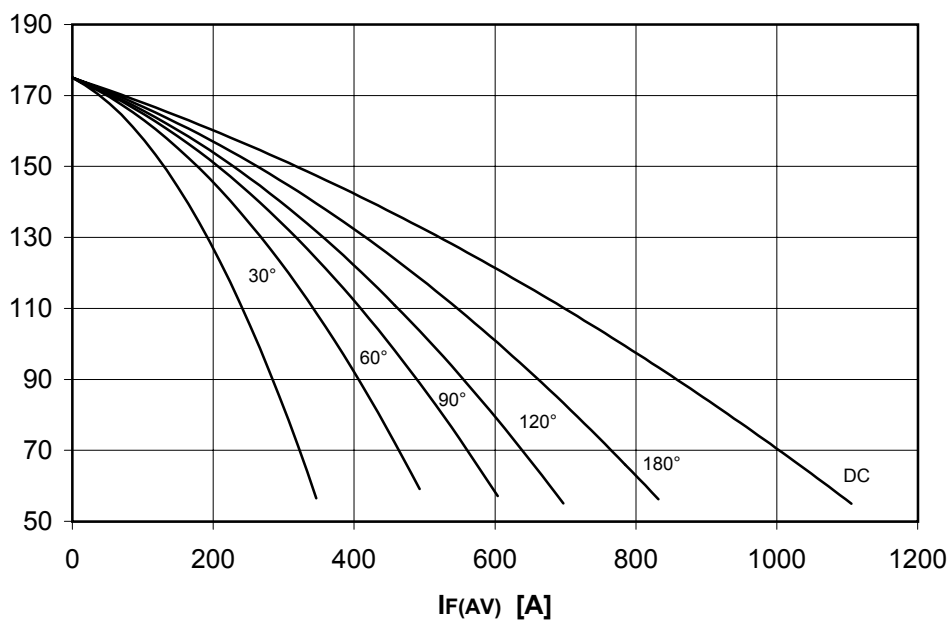
⊕ MOUNTIG

Symbol	Characteristic	Conditions	T _J	Value	Units
R _{th(j-h)}	Thermal impedance,DC	Junction to heatesink, double side cooled		95	°C/kW
R _{th(c-h)}	Thermal impedance	Case to heatesink, double side cooled		20	°C/kW
T _J	Operating junction temperature			-30/+175	°C
F	Mounting force			4.5/5.0	kN
	Mass			68	g

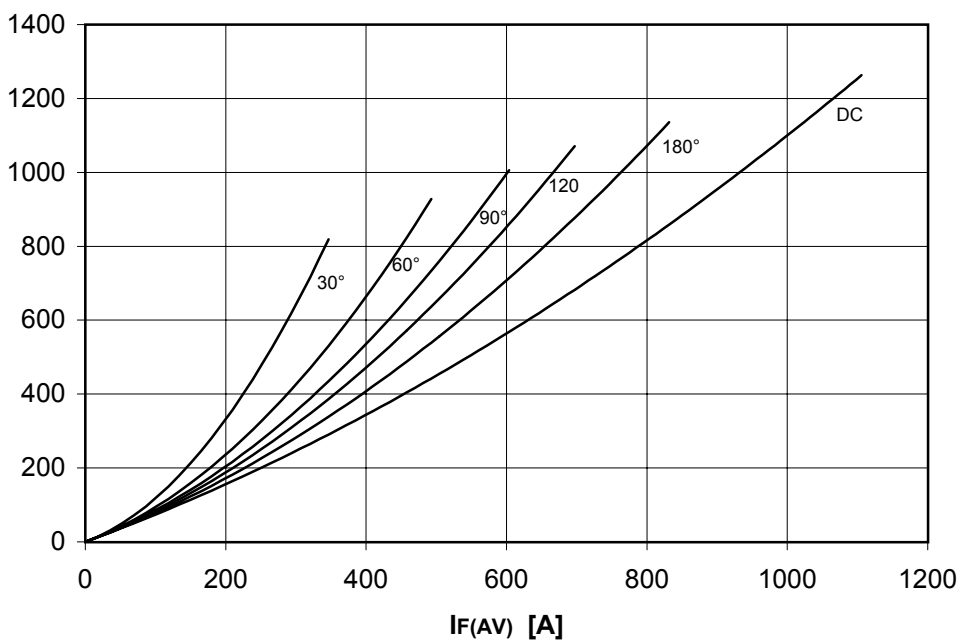
Dissipation Characteristics

Square Wave

Th [°C]

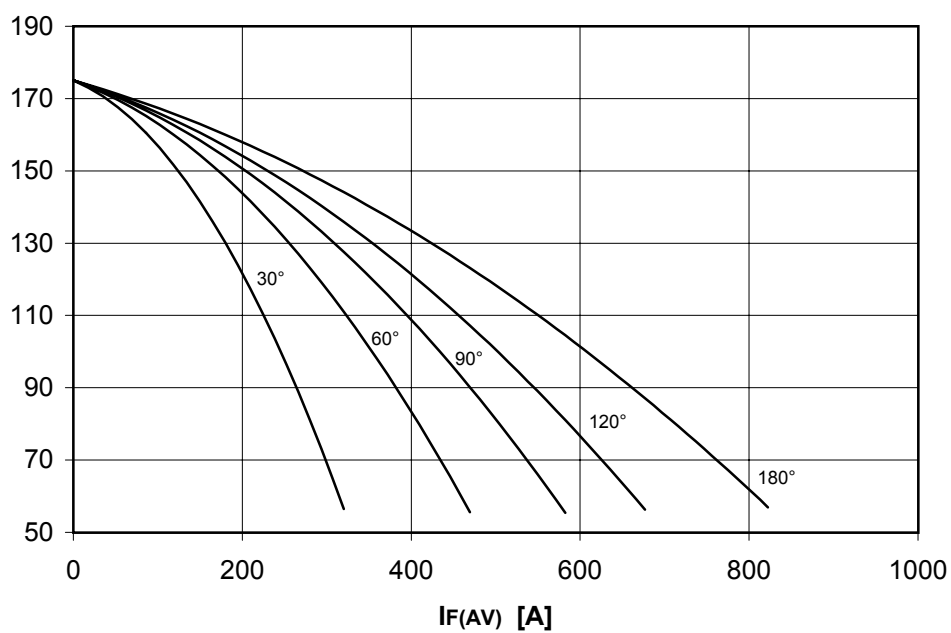


PF(AV) [W]

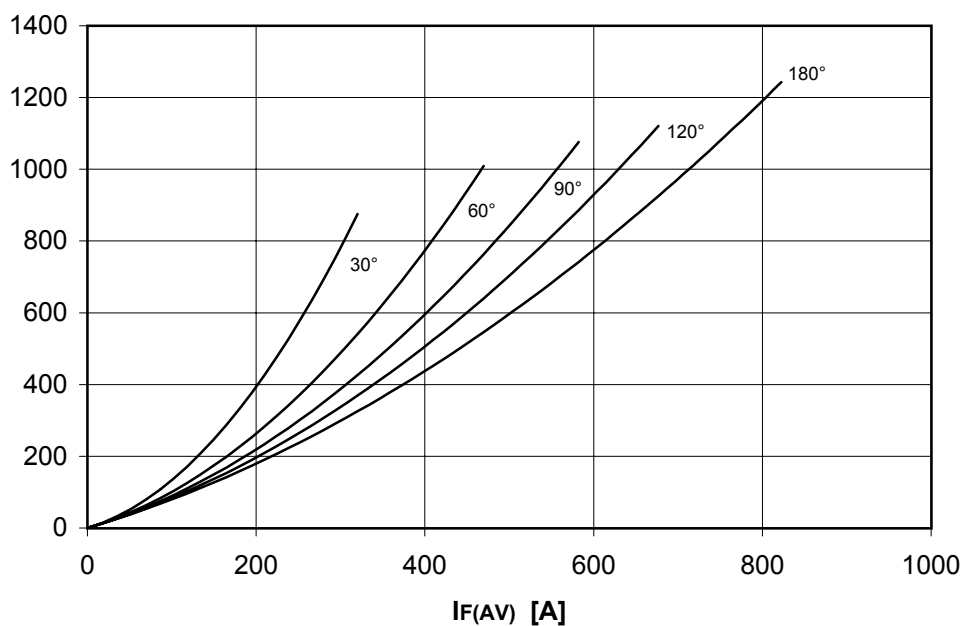


Dissipation Characteristics Sine Wave

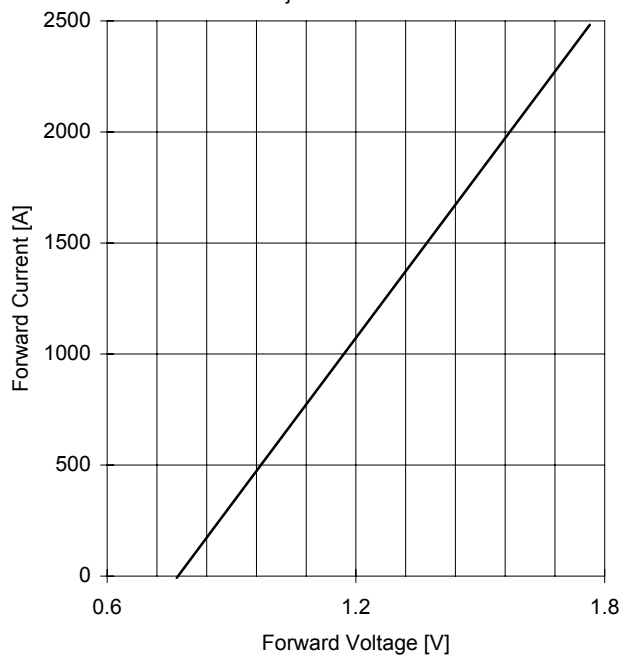
Th [°C]



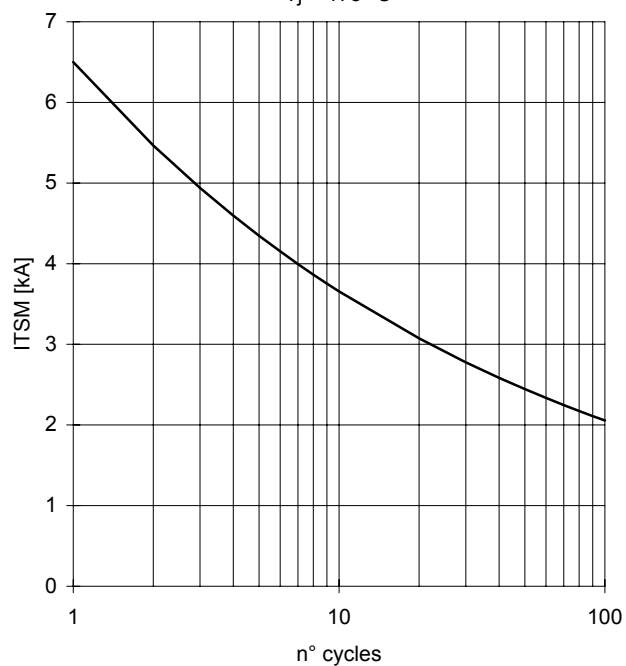
PF(AV) [W]



FORWARD CHARACTERISTIC
 $T_j = 175\text{ }^\circ\text{C}$



SURGE CHARACTERISTIC
 $T_j = 175\text{ }^\circ\text{C}$



TRANSIENT THERMAL IMPEDANCE
DOUBLE SIDE COOLED

