

**FEATURES**

- Diffused junction
- Glass-sealed capsule
- High current capabilities
- High surge capability
- Voltage range 400 and 1000 V
- Long term reliability
- Low leakage
- Compact size and low weight
- Standard and optional terminals available
- Lead free product



**APPLICATION**

- Power supplies
- Battery chargers
- Arc welding



non-contractual photo

**TECHNICAL INFORMATION**

**Electrical properties**

Parameter		Value & test conditions	
Repetitive reverse voltage	$V_{RRM}$	400 V	1000 V
Type reference	$V_{RRM}$	SCDx0035N04x	SCDx0035N10x
Average forward current	$I_{AV}$	35 A @ $T_c=140^{\circ}C$	
Surge forward current	$I_{FSM}$	500 A at 10ms, $T_{j_{max}}$	
$I^2t$ value	$I^2t$	1250 A <sup>2</sup> s at 10ms, $T_{j_{max}}$	
Reverse current	$I_R$	500 $\mu$ A @ $T_j=25^{\circ}C$	
		2 mA @ $T_{j_{max}}$	
On-state voltage max.	$V_{FM}$	1,2 V at $I_{FM}=50$ A @ $T_j=25^{\circ}C$	

**Thermal properties**

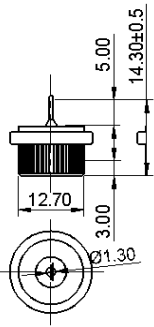
Parameter		Value & test conditions
Max. operating junction temperature	$T_{j_{max}}$	175 $^{\circ}C$
Thermal resistance junction-capsule	$RTH_{j-c}$	0,8 $^{\circ}C/W$
Thermal resistance capsule-heatsink	$RTH_{c-hs}$	0,2 $^{\circ}C/W$ . (Typical)
Storage temperature	$T_{stg}$	-55...+175 $^{\circ}C$

**Mechanical properties**

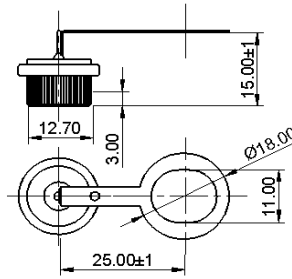
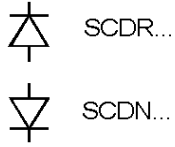
Parameter		Value	
Aprox weight	M	"A" type	9,10 grs.
		"C" type	9,95 grs.
		"D" type	10,05 grs.
		"E" type (optional)	10,20 grs.
		"F" type (optional)	10,30 grs.
Mounting force	F	100...300 Kp	

110726 Rev.:1

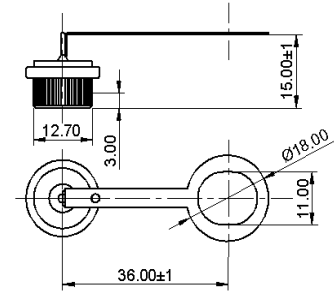
**TYPES & DIMENSIONS**



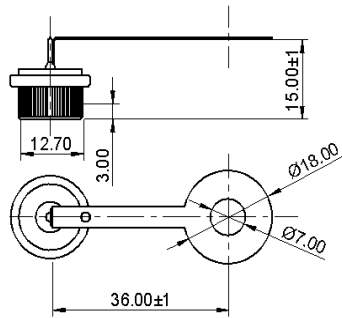
SCDx0035NxxA



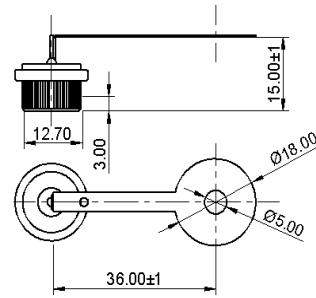
SCDx0035NxxC



SCDx0035NxxD



SCDx0035NxxE



SCDx0035NxxF

## MOUNTING

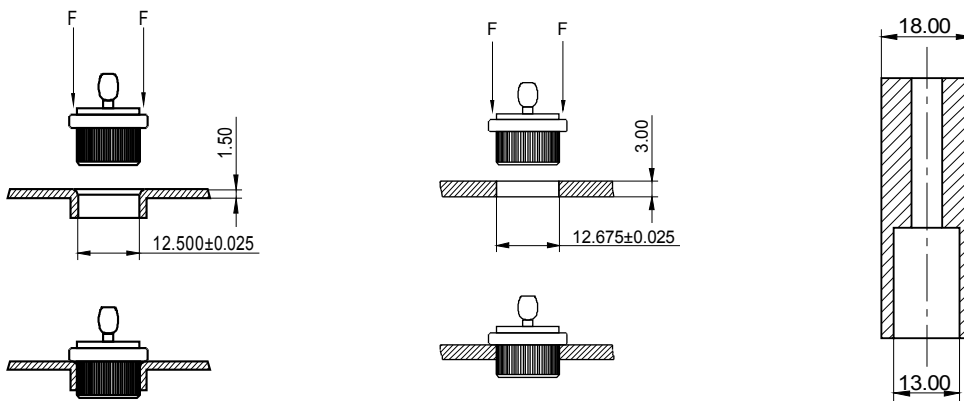
Recommended procedures for this type of mounting are as follows:

1- Heat sink or plate (minimum thickness 3 mm): Drill a hole in the heat sink  $12.675 \pm 0.025$  mm in diameter. For plate thickness < 3 mm.:  $12.500 \pm 0.025$  stuffed hole diameter (see figure below).

2-Introduction and pressing must be done in the indicated direction. Pressing force must be between 100 to 300 Kgf depending on the material used.

3-An example of pressing tool is described too.

These procedures will allow proper entry of the rectifier surface, provide good rectifier-heat sink surface contact, and assure long time reliable rectifier operation.



## ORDER CODES:

SCD x 0035 N xx x  
(1) (2) (3) (4) (5) (6)

- (1)- SCD: SEMICODE rectifier diode identification
- (2)- Polarity (N: cathode to stud ; R: anode to stud)
- (3)- Current identifier
- (4)- Normal rectifier diode identifier.
- (5)-  $V_{RRM}$  indication (04:  $400V_{RRM}$ ; 10:  $1000V_{RRM}$ )
- (6)- Option (terminal) identifier (see figures).

# Cost Effective Products

## SEMICODE ELECTRONICA

Offers to the market a comprehensive range of products from recognized manufacturers at the best price/quality ratio, this products are provided with a basic reference code that allows maintaining the same product reference even if the original device manufacturer is replaced. SEMICODE product reference has to be considered as a generic brand.

Seeking the market needs and trends, we are constantly increasing the product portfolio with new products and suppliers, please ask for the updated information available to our local contacts.

SEMICODE products include semiconductors, passive components and accessories focused in power electronics market.

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**Preliminary Information:** The product is in design and development. The data sheet represents the product as it is understood but details may change.

**Advance Information:** The product design is complete and final characterization for volume production is well in hand.

**No Annotation:** The product parameters are fixed and the product is available to data sheet specification.

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110726 Rev.:1