SCDx0034N

Press-fit diode

FEATURES

-Diffused junction
-Void-free molded plastic technique
-High current capabilities
-High surge capability
-Voltage range 400 and 600 V
-Long term reliability
-Low leakage
-Very low cost
-Compact size and low weight
-Standard and optional terminals available
-Lead free product

RoHS

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	600 V
Type reference	V_{RRM}	SCDx0034N04x	SCDx0034N06x
Average forward current	I_{AV}	35 A @ Tc=150ºC	
Surge forward current	I_{FSM}	450 A at 10ms, Tj_{max}	
I^2t value	I^2t	800 A^2s at 10ms, Tj_{max}	
Reverse current	I_R	10µA @ Tj=25ºC	
		500 µA @ Tj_{max}	
On-state voltage max.	V_{FM}	1,1 V at I_{FM}=78,5 A @ Tj=25 ºC	

Thermal properties

Parameter		*Value & test conditions*
Max. operating junction temperature	Tj_{max}	175 ºC
Thermal resistance junction-capsule	RTH_{j-c}	1,05 ºC/W
Thermal resistance capsule-heatsink	RTH_{c-hs}	0,20ºC/W. (Typical)
Storage temperature	T_{stg}	-50...+175ºC

Mechanical properties

Parameter		*Value*	
Aprox weight	M	"A" type	5,30 grs.
		"C" type	6,10 grs.
		"D" type	6,15 grs.
		"E" type (optional)	6,50 grs.
		"F" type (optional)	6,60 grs.
Mounting force	F	100...300 Kp	

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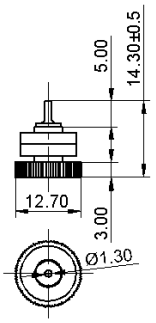
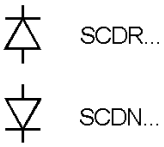
TYPES & DIMENSIONS





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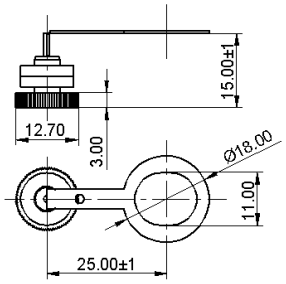

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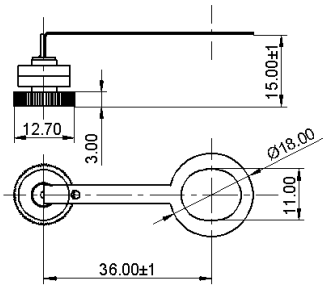

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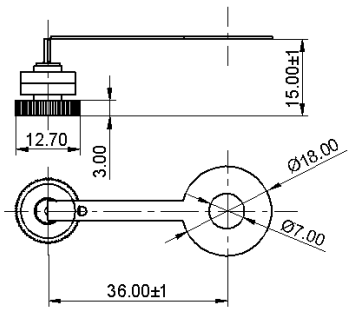

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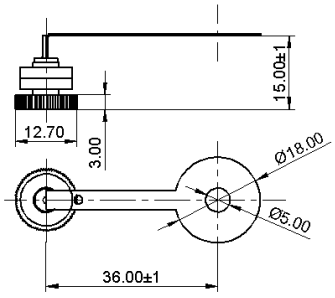

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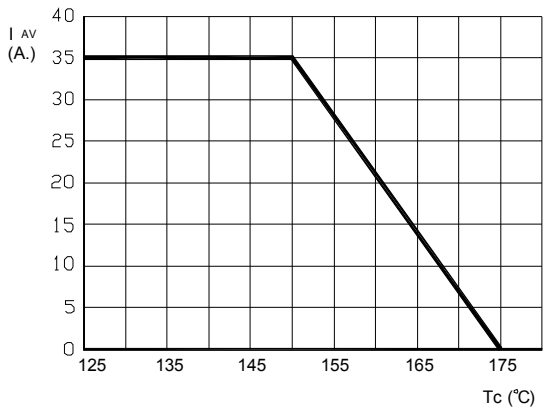
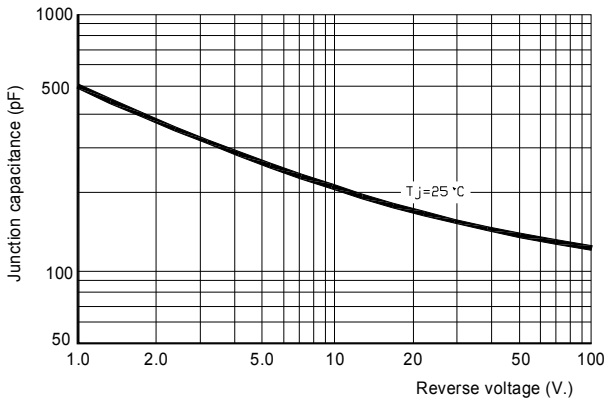
GRAPHICAL INFORMATION



MAXIMUM FORWARD CURRENT DERATING CURVE



TYPYCAL JUNCTION CAPACITANCE

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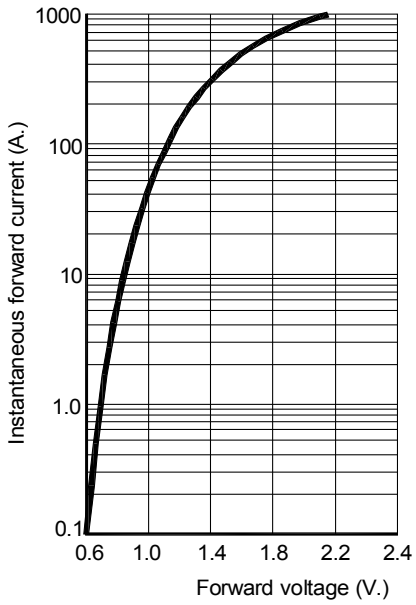
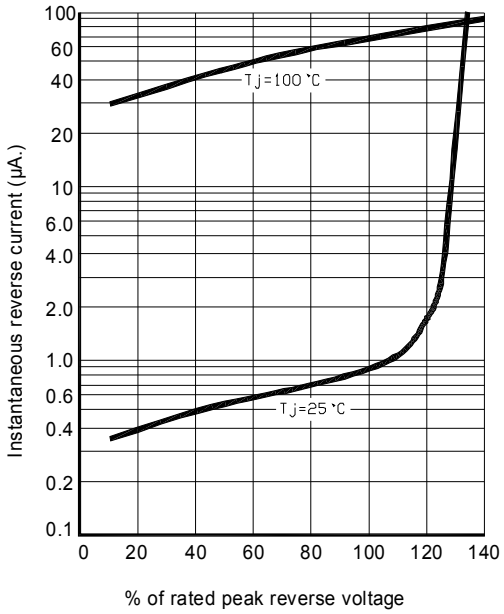
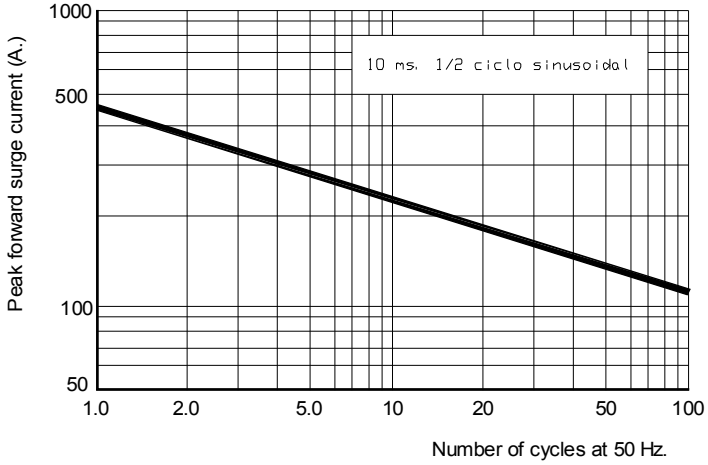


TYPYCAL FORWARD CHARACTERISTICS



TYPYCAL REVERSE CHARACTERISTICS



MAXIMUM REPETITIVE PEAK FORWARD SURGE CURRENT

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MOUNTING

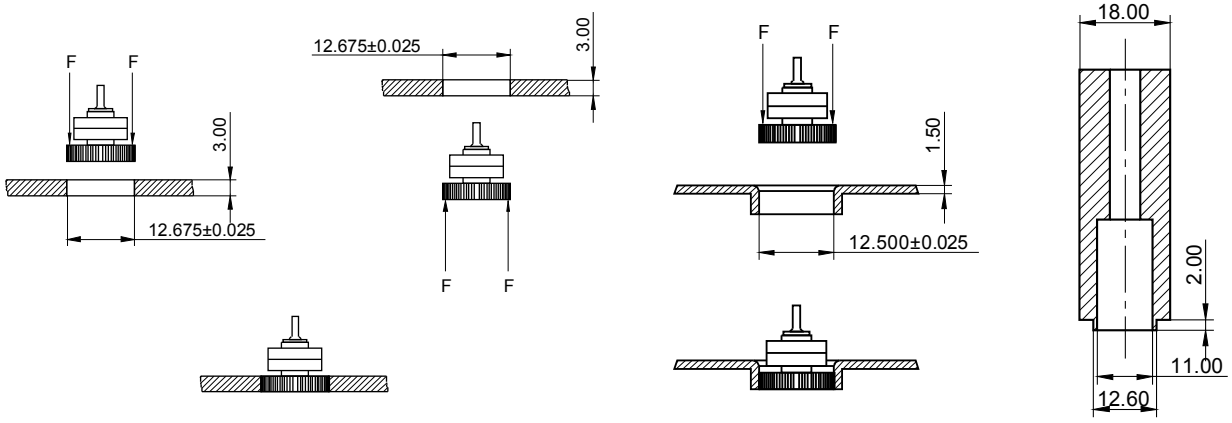
Recommended procedures for this type of mounting are as follows:

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

2-Introduction and pressing must be done in the indicated direction. Pressing force must be betwenn 100 to 300 Kp 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	0034	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}; 06: 600V_{RRM})
(6)- Option (terminal) identifier (see figures).

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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.

Data sheet Annotations:

SEMICODE ELECTRONICA annotate data sheets in the top left hard corner of the front page, to indicate product status. The annotations are as follows:
Tentative information: This is the most tentative form of information and represents a very preliminary specification. No actual design work on the product has been started.
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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