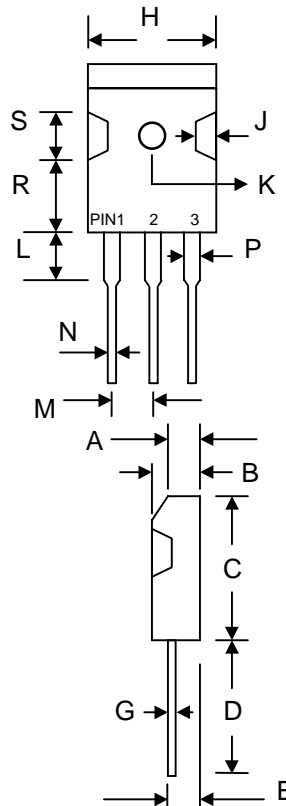


## Features

- Schottky Barrier Chip
- Guard Ring for Transient Protection
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

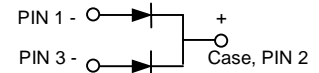
## Mechanical Data

- Case: TO-3P, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram
- Weight: 5.6 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 11.5 cm·kg (10 in·lbs) Max.
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



TO-3P		
Dim	Min	Max
A	3.20	3.50
B	4.70	5.30
C	—	23.00
D	19.00	—
E	2.80	3.20
G	0.45	0.85
H	—	16.20
J	1.70	2.70
K	3.15 Ø	3.65 Ø
L	—	4.50
M	5.25	5.65
N	1.10	1.40
P	—	2.50
R	11.70	12.70
S	5.00	6.00

All Dimensions in mm



## Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	S16D 30C	S16D 35C	S16D 40C	S16D 45C	S16D 50C	S16D 60C	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	30	35	40	45	50	60	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21	25	28	32	35	42	V
Average Rectified Output Current @T <sub>C</sub> = 95°C	I <sub>O</sub>	16						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	250						A
Forward Voltage @I <sub>F</sub> = 8.0A	V <sub>FM</sub>	0.55				0.65		V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	1.0 40						mA
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	700						pF
Typical Thermal Resistance Junction to Case (Note 2)	R <sub>θJC</sub>	1.5						°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150						°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Thermal resistance junction to case mounted on heatsink.

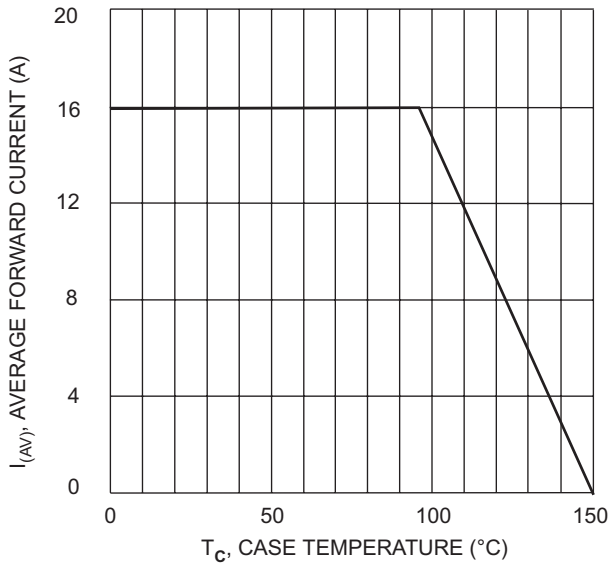


Fig. 1 Forward Current Derating Curve

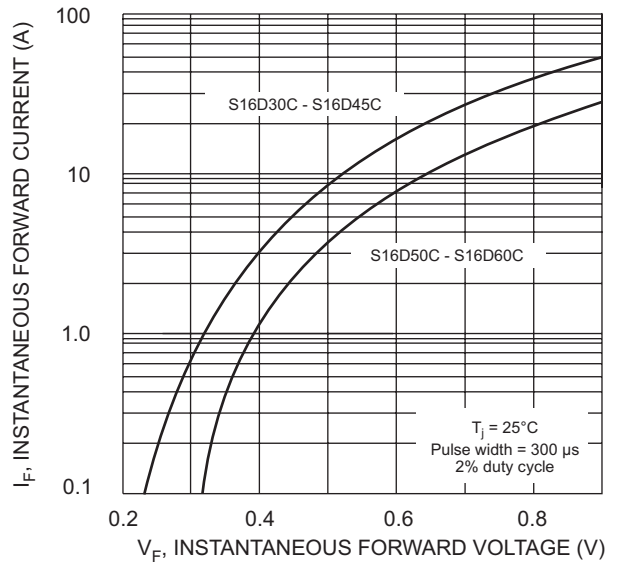


Fig. 2 Typical Forward Characteristics per Element

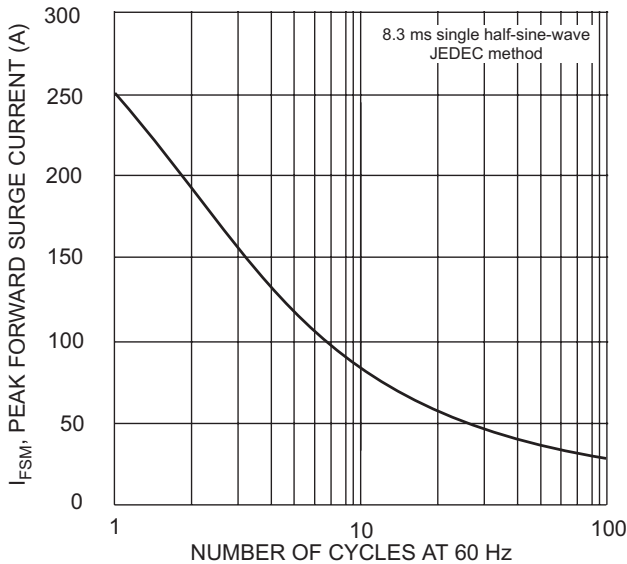


Fig. 3 Max Non-Repetitive Surge Current

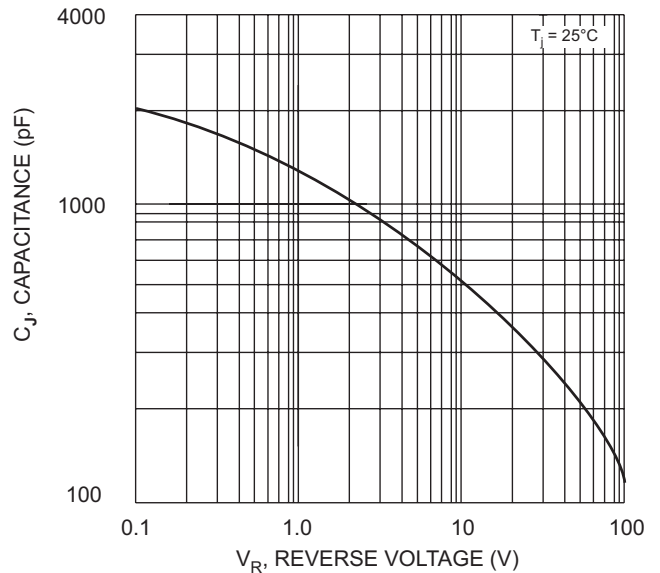


Fig. 4 Typical Junction Capacitance per Element

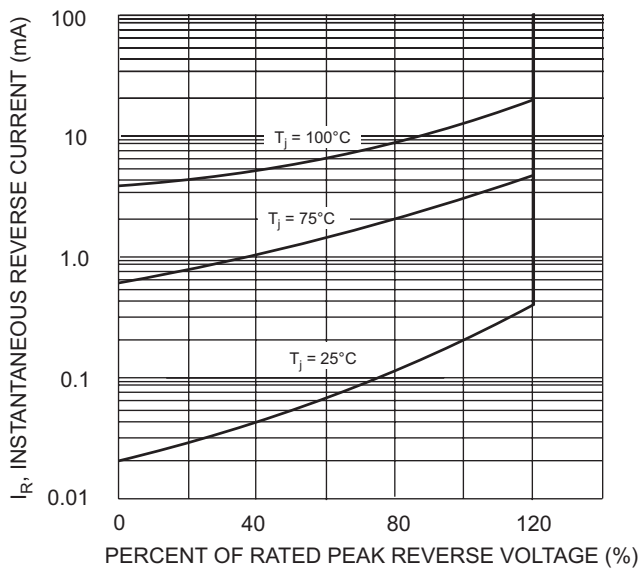
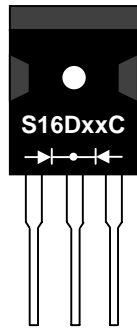


Fig. 5 Typical Reverse Characteristics per Element

## MARKING INFORMATION



S16DxxC = Device Number  
 xx = 30, 35, 40, 45, 50 or 60  
 Polarity = As Marked on Body

## PACKAGING INFORMATION

### BULK

Tube Size L x W x H (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
505 x 46 x 6.5	30	520 x 145 x 95	1,200	540 x 306 x 115	2,400	18.0

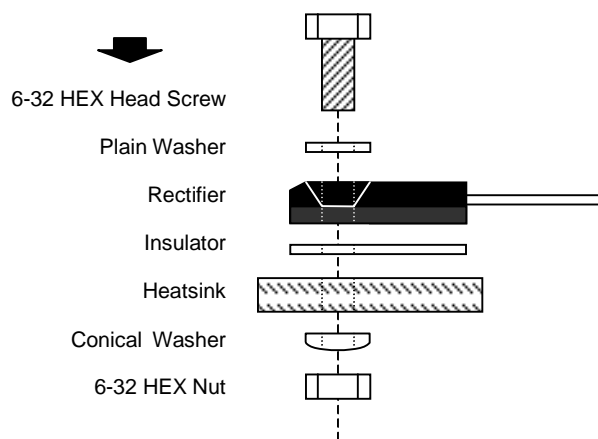
**Note:** 1. Anti-static tube, water clear color.

## RECOMMENDED SCREW MOUNTING ARRANGEMENT

Recommended isolated mounting when screw is at heatsink potential. 6-32 hardware is used.

A conical washer should be used to apply proper force to the device. Screw should not be tightened with any type of air-forced torque or equipment that may cause high impact on device package.

The interface should apply a layer of thermal grease or a highly conductive thermal pad for better heat dissipation.



## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
S16D30C	TO-3P	30 Units/Tube
S16D35C	TO-3P	30 Units/Tube
S16D40C	TO-3P	30 Units/Tube
S16D45C	TO-3P	30 Units/Tube
S16D50C	TO-3P	30 Units/Tube
S16D60C	TO-3P	30 Units/Tube

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, S16D30C-LF.**

Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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