

## 160A Schottky Barrier Rectifiers

### Features

- High Surge Capability
- Types Up to 100V  $V_{RRM}$
- Isolated to Plate
- RoHS compliance



TO-249



### Mechanical Data

<b>Case:</b>	TO-249, molded plastic body over passivated chips
<b>Epoxy:</b>	High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
<b>Terminals:</b>	Matte tin plated leads, solderable per J-STD-002 and JESD22-B102
<b>Polarity</b>	As marked
<b>Mounting Position:</b>	Any
<b>Weight:</b>	2.5 ounces, 71 gram

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	FST 16020	FST 16030	FST 16035	FST 16040	FST 16045	FST 16060	FST 16080	FST 160100	Unit	Condition
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	20	30	35	40	45	60	80	100	V	-
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	14	21	25	28	32	42	56	70	V	-
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	20	30	35	40	45	60	80	100	V	-
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	160								A	$T_C=115^{\circ}C$
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current (Per leg)	1200								A	8.3ms, half sine
<b>T<sub>OPR</sub></b>	Operating Temperature	-40 ~ +125								$^{\circ}C$	-
<b>T<sub>STG</sub></b>	Storage Temperature	-40 ~ +175								$^{\circ}C$	-

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## FST16020 - FST160100

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	FST 16020	FST 16030	FST 16035	FST 16040	FST 16045	FST 16060	FST 16080	FST 160100	Unit	Condition	
$V_F$	Maximum Instantaneous Forward Voltage (Per leg) (Note 1)	0.75					0.80	0.88			V	$I_{FM}=80A$
$I_R$	Maximum Instantaneous Reverse Current at rated DC Blocking Voltage (Per leg) (Note 1)	1									mA	$T_J=25^{\circ}C$
		10										$T_J=125^{\circ}C$
$R_{\theta-JC}$	Maximum Thermal Resistance Junction To Case (Per leg)	1.0									$^{\circ}C/W$	-

**Note 1:** Pulse test: 300 $\mu$ s pulse width, duty cycle < 2%.

### Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

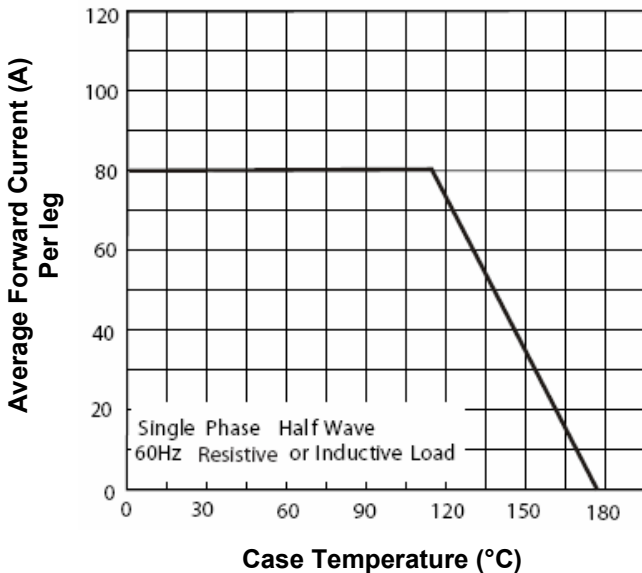
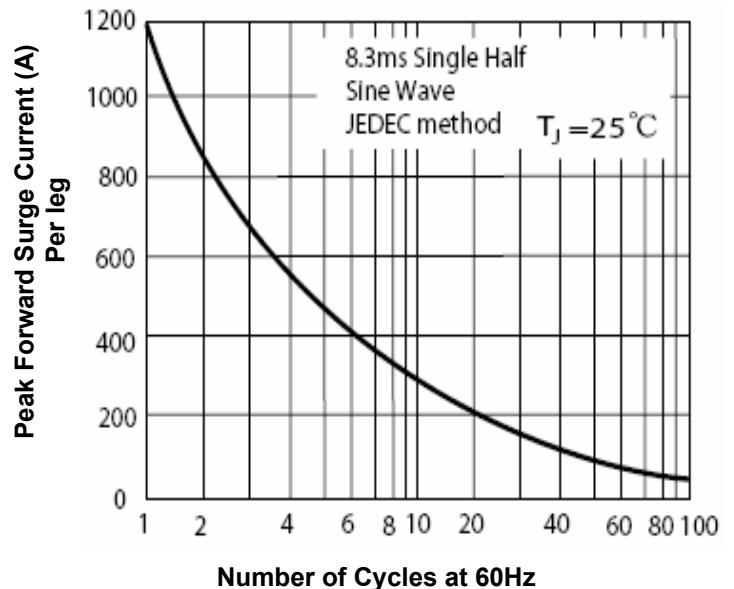


Fig.2- Peak Forward Surge Current



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## FST16020 - FST160100

Fig.3- Typical Instantaneous Forward Characteristics

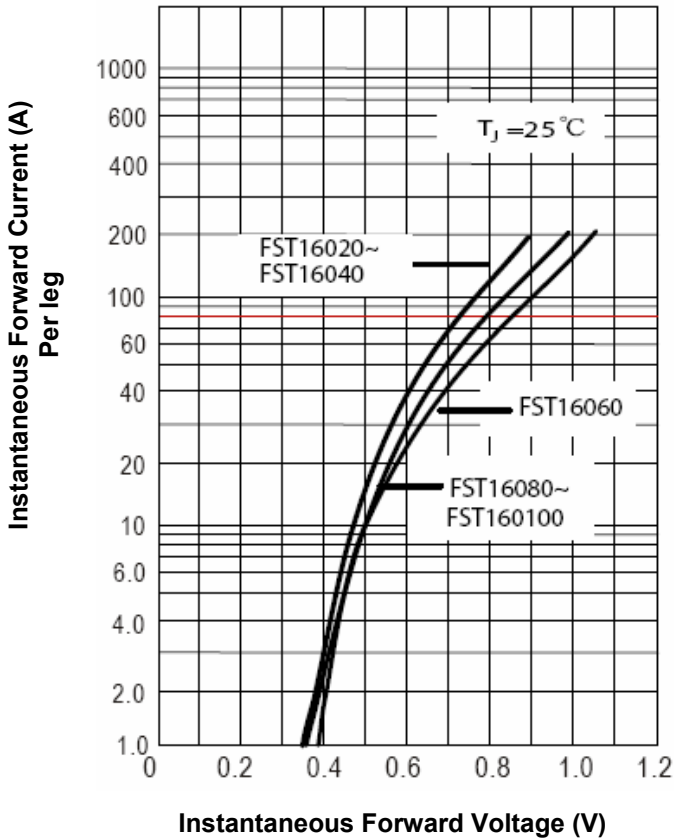
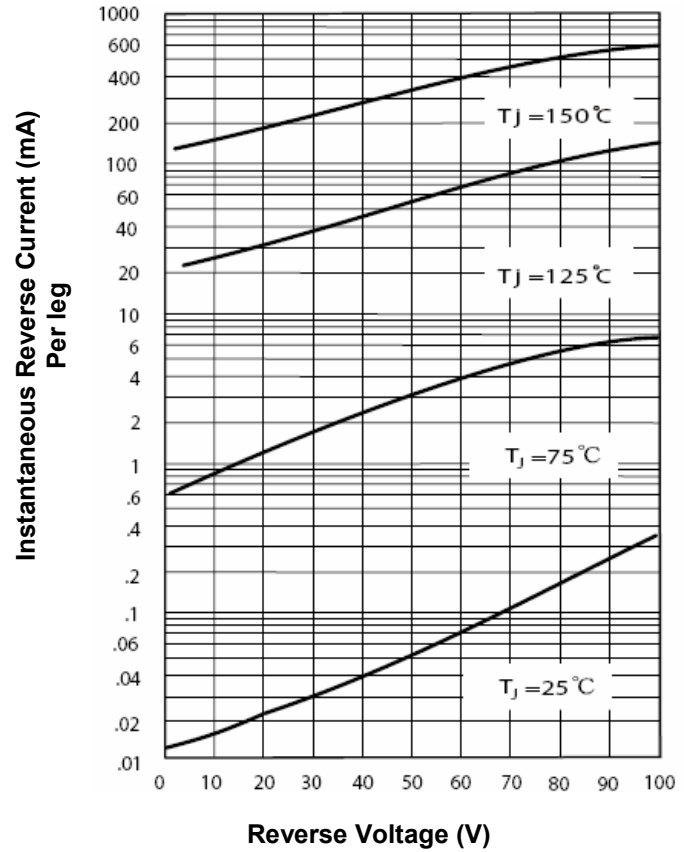


Fig.4- Typical Reverse Characteristics

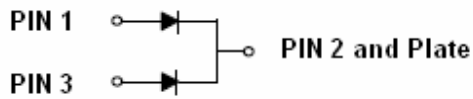
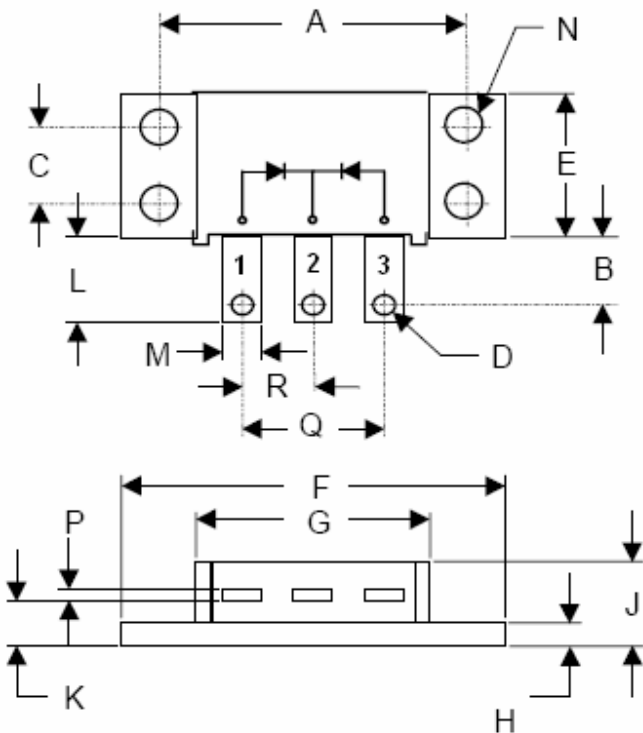


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Dimensions in inches (mm)

### TO-249



Dimensions					
DIM	Inches		mm		Note
	Min	Max	Min	Max	
A	1.995	2.005	50.67	50.93	
B	0.300	0.325	7.62	8.26	
C	0.495	0.505	12.57	12.83	
D	0.182	0.192	4.62	4.88	Φ
E	0.990	1.010	25.15	26.65	
F	2.390	2.410	60.71	61.21	
G	1.495	1.525	37.90	38.70	
H	0.114	0.122	2.90	3.10	
J	---	0.420	---	10.67	
K	0.240	0.260	6.10	6.60	
L	0.490	0.510	12.45	12.95	
M	0.330	0.350	8.38	8.90	
N	0.175	0.195	4.45	4.95	Φ
P	0.035	0.045	0.89	1.14	
R	0.445	0.455	11.30	11.56	
Q	0.890	0.910	22.61	23.11	

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FST16020 - FST160100

## How to contact us:

### US HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 824-8766 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

### TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.

42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

### TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

### TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931