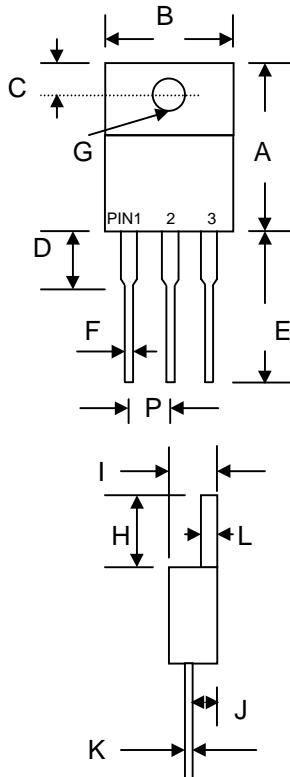


Features

- Glass Passivated Die Construction
- Super-Fast Switching
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: ITO-220, Full Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 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**



ITO-220		
Dim	Min	Max
A	14.60	15.40
B	9.70	10.30
C	2.55	2.85
D	3.56	4.16
E	13.00	13.80
F	0.30	0.90
G	3.00 Ø	3.50 Ø
H	6.30	6.90
I	4.20	4.80
J	2.50	2.90
K	0.36	0.80
L	2.90	3.30
P	2.29	2.79

All Dimensions in mm

Maximum Ratings and Electrical Characteristics

$\text{@ } T_A = 25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	ER 1600FCT	ER 1601FCT	ER 1601AFCT	ER 1602FCT	ER 1603FCT	ER 1604FCT	ER 1606FCT	Unit
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	150	200	300	400	600	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	210	280	420	V
Average Rectified Output Current $\text{@ } T_C = 105^\circ\text{C}$	I_O					16			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}					125			A
Forward Voltage $\text{@ } I_F = 8.0\text{A}$	V_{FM}			0.95			1.3	1.7	V
Peak Reverse Current $\text{@ } T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage $\text{@ } T_A = 125^\circ\text{C}$	I_{RM}				10	500			μA
Reverse Recovery Time (Note 1)	t_{rr}			35			50		nS
Typical Junction Capacitance (Note 2)	C_J			80			60		pF
Operating and Storage Temperature Range	T_J, T_{STG}				-65 to +150				$^\circ\text{C}$

Note: 1. Measured with $IF = 0.5\text{A}$, $IR = 1.0\text{A}$, $IRR = 0.25\text{A}$.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

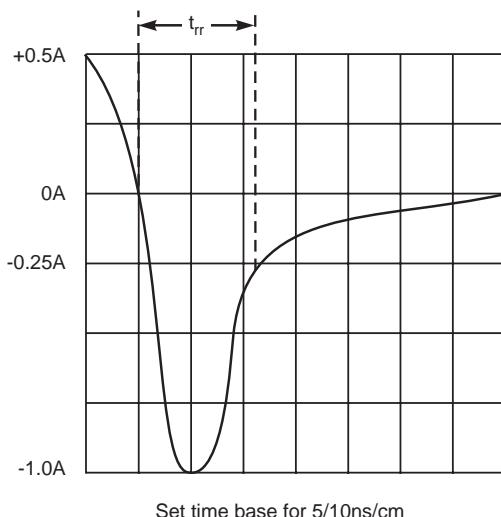
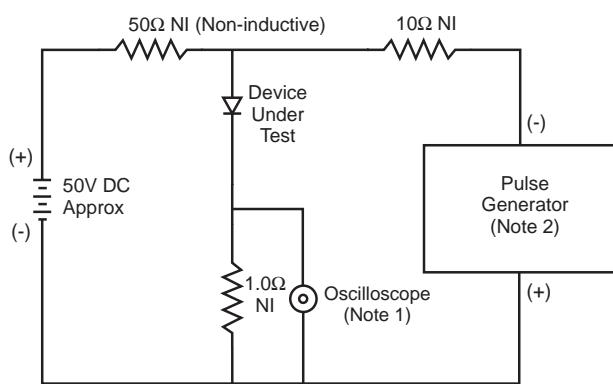
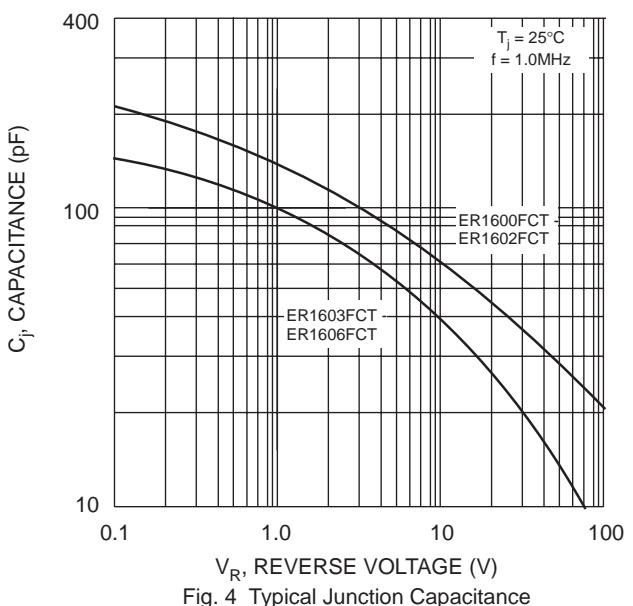
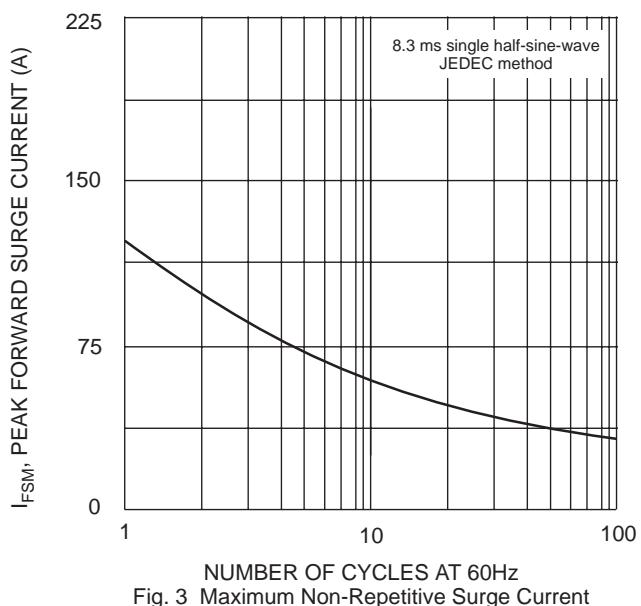
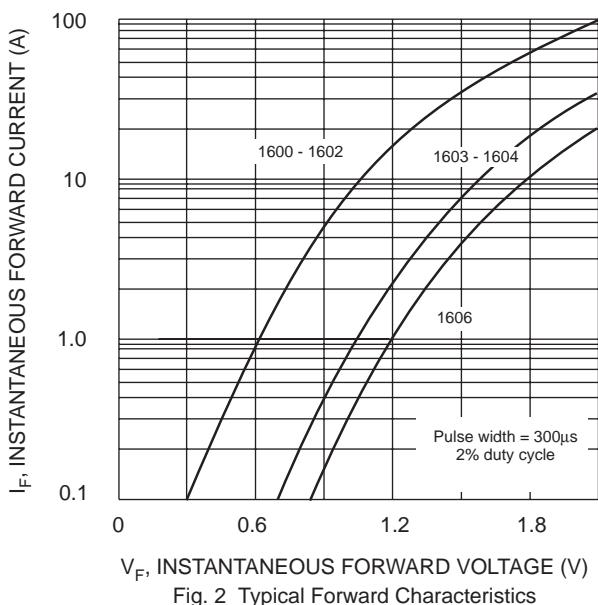
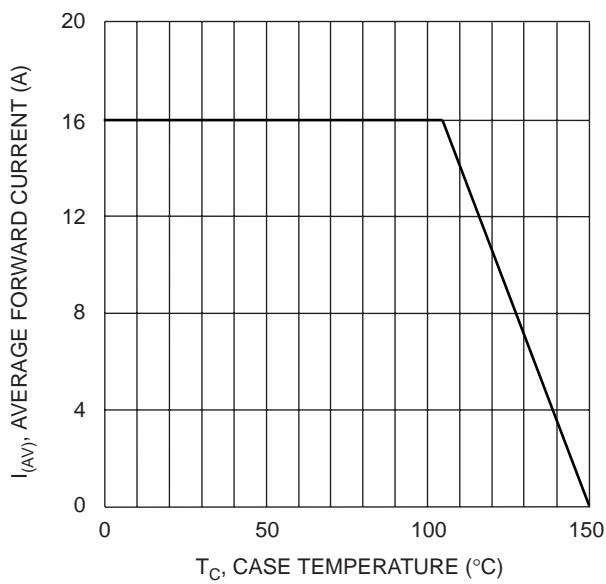
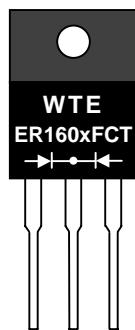


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

MARKING INFORMATION



WTE = Manufacturer's Logo
ER160xFCT = Device Number
x = 0, 1, 1A, 2, 3, 4 or 6
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)
525 x 31 x 6	50	555 x 145 x 95	2,000	572 x 306 x 218	8,000	19.0

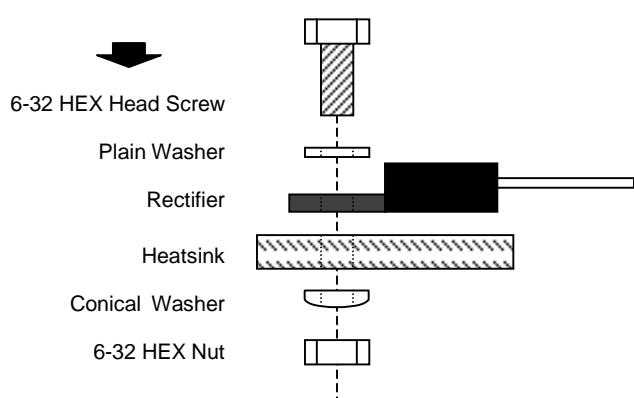
Note: 1. Anti-static tube, water clear color.

RECOMMENDED SCREW MOUNTING ARRANGEMENT

The full molded plastic package affords a major reduction of hardware as compared to a standard TO-220 package. However, precautions should be made in mounting procedure.

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 crack on device package.

A layer of thermal grease or thermal pad in the interface will be considerably helpful for heat dissipation.



ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
ER1600FCT	ITO-220	50 Units/Tube
ER1601FCT	ITO-220	50 Units/Tube
ER1601AFCT	ITO-220	50 Units/Tube
ER1602FCT	ITO-220	50 Units/Tube
ER1603FCT	ITO-220	50 Units/Tube
ER1604FCT	ITO-220	50 Units/Tube
ER1606FCT	ITO-220	50 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, ER1600FCT-LF.**

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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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