



# Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

TEL: (805) 522-9998 FAX: (805) 522-9989

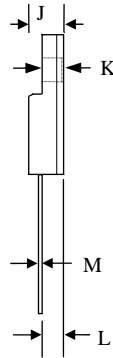
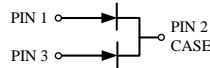
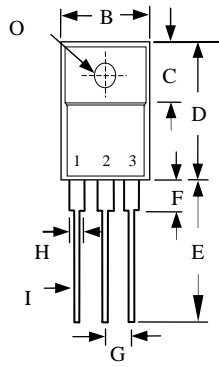
E-mail: [frontiersales@frontierusa.com](mailto:frontiersales@frontierusa.com)

Web: <http://www.frontierusa.com>

## 16A DUAL FAST EFFICIENT GLASS PASSIVATED RECTIFIER

### FEF160-02CT THRU FEF160-06CT

CASE : ITO-220AB ( FEF160-XX ) , FULLY INSULATED PACKAGE



	MILLIMETERS	
	MIN	MAX
B	9.72	10.27
C	6.30	6.90
D	14.50	15.50
E	13.00	13.80
F	-	4.1
G	2.41	2.67
H	-	1.52
I	-	0.9
J	-	4.8
K	-	3.1
L	2.5	2.9
M	-	0.8
O	-	Ø 3.4

#### FEATURES

- GLASS PASSIVATED CHIP JUNCTION
- LOW FORWARD VOLTAGE
- LOW THERMAL RESISTANCE
- HIGH CURRENT CAPABILITY
- HIGH VOLTAGE

#### MECHANICAL DATA

- CASE: TRANSFER MOLDED
- TERMINAL: MIL-STD-202F METHOD 2026
- POLARITY: AS MARKED
- EPOXY: UL94V-0 FLAME RETARDANT MOLDING COMPOUND
- MOUNTING POSITION: ANY
- WEIGHT: 2.05 GRAMS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. OR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	FEF160-02CT	FEF160-04CT	FEF160-06CT	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	200	400	600	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	140	280	420	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	200	400	600	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1	$I_O$	16.0			A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	150			A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	$C_J$	65			PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta jc}$	2.2			°C/W
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 55 TO + 150			°C
OPERATING TEMPERATURE RANGE	$T_{OP}$	- 55 TO + 150			°C

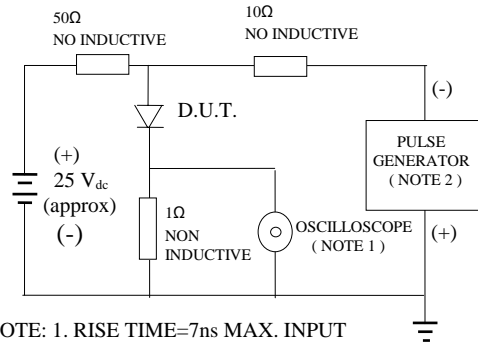
#### ELECTRICAL CHARACTERISTICS (A<sub>T</sub> T<sub>A</sub> =25°C UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	FEF160-02CT	FEF160-04CT	FEF160-06CT	UNITS
MAXIMUM FORWARD VOLTAGE AT 8A PER LEG	$V_F$	0.98	1.25	1.90	V
MAXIMUM DC REVERSE CURRENT AT T <sub>A</sub> =25°C	$I_R$	10			μA
MAXIMUM DC REVERSE CURRENT AT T <sub>A</sub> =100°C	$I_R$	100			μA
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	$T_{RR}$	25			nS

- NOTES: 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS  
 2. THERMAL RESISTANCE JUNCTION TO CASE PER LEG MOUNTED ON HEAT SINK  
 3. REVERSE RECOVERY TEST CONDITIONS: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

# RATINGS AND CHARACTERISTIC CURVE FEF160-02CT THRU FEF160-06CT

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTE: 1. RISE TIME=7ns MAX. INPUT IMPEDANCE=1 MOhms 22PF  
2. RISE TIME =10 ns MAX. SOURCE IMPEDANCE=50 OHMS

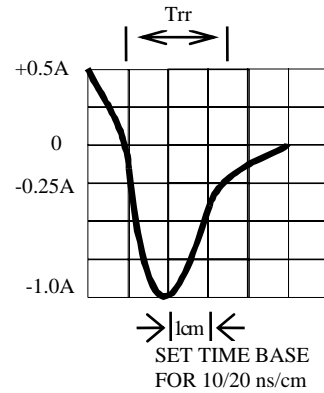


FIG. 2 - MAXIMUM FORWARD CURRENT DERATING CURVE

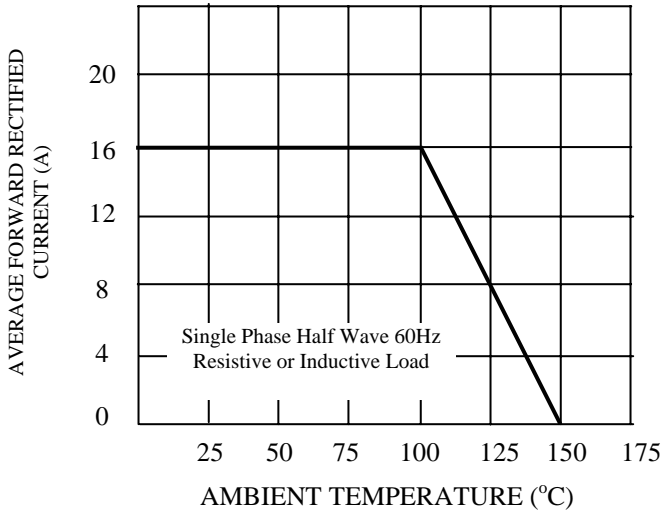


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

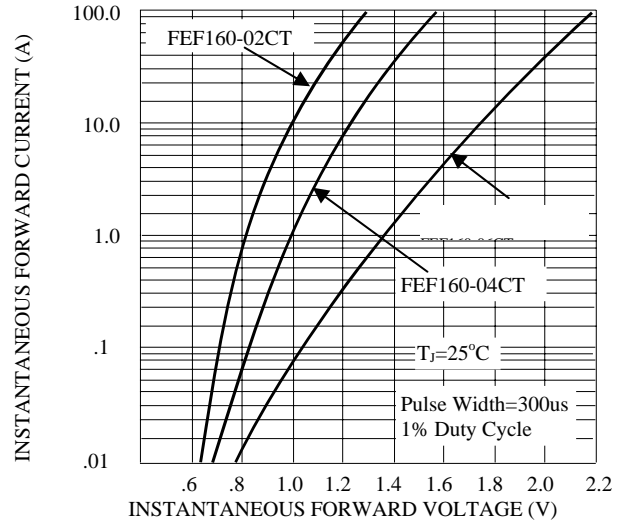


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

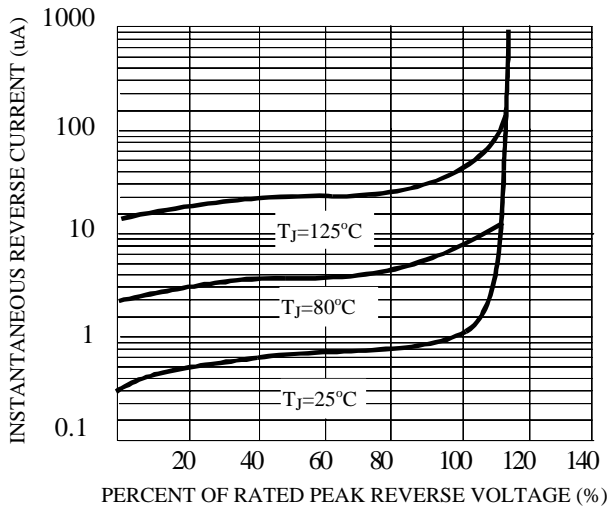


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

