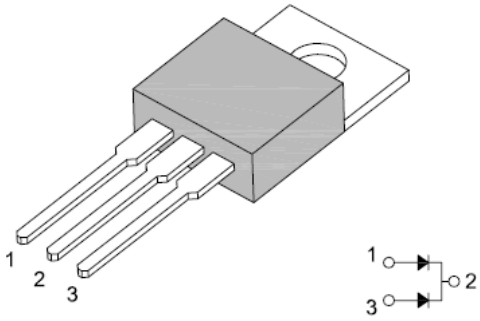
16A Super Fast Recovery Rectifiers



TO-220

Features

- Glass passivated chip junction
- Super fast recovery times, high voltage
- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge current capability
- RoHS Compliance

Mechanical Data

Case:	TO-220, molded plastic
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Lead, solderable per MIL-STD-202, Method 208
Polarity:	As marked
Mounting Torque:	10 in-lbs maximum
Weight:	0.08 ounces, 2.24 grams

Maximum Ratings and Electrical Characteristics *(T_A=25ºC unless noted otherwise)*

Symbol	Description	FEP 16AT	FEP 16BT	FEP 16CT	FEP 16DT	FEP 16FT	FEP 16GT	FEP 16HT	FEP 16JT	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	150	200	300	400	500	600	V	
V_{RMS}	Maximum RMS Voltage	35	70	105	140	210	280	350	420	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	150	200	300	400	500	600	V	
$I_{F(AV)}$	Maximum Average Forward Rectified Current	16								A	T_C=100˚C
I_{FSM}	Peak Forward Surge Current per leg	200								A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

FEP16AT – FEP16JT

Symbol	Description	FEP 16AT	FEP 16BT	FEP 16CT	FEP 16DT	FEP 16FT	FEP 16GT	FEP 16HT	FEP 16JT	Unit	Conditions
V_F	Maximum Instantaneous Forward Voltage per leg	0.95				1.30		1.50		V	I_F=8.0A
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	10								μA	T_C=25° C
		500									T_C=100° C
T_{rr}	Typical Reverse Recovery Time per leg	35				50				nS	I_F=0.5A, I_R=1A, I_{rr}=0.25A
C_J	Typical Junction Capacitance per leg	85						60		pF	V_R=4V, f=1MHz
R_{thJC}	Typical Thermal Resistance from Junction to Case per leg	2.2								° C/W	
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150								° C	

Typical Characteristics Curves

Fig.1-Forward Current Derating Curve

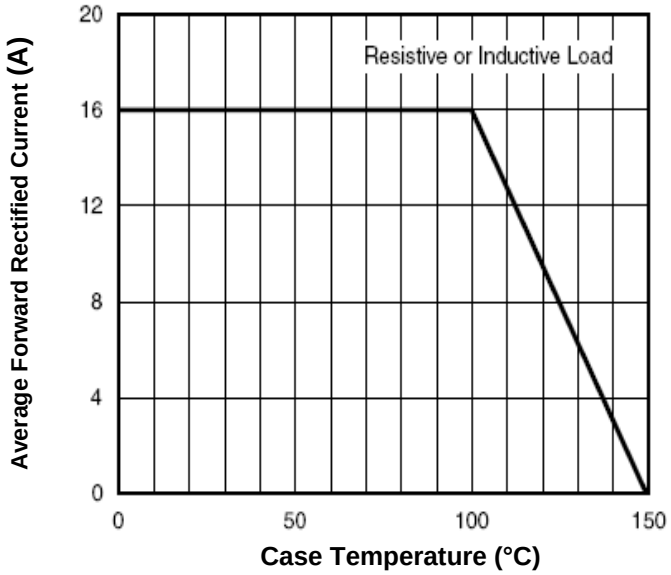


Fig.2-Max. Non-Repetitive Peak Forward Surge Current per leg

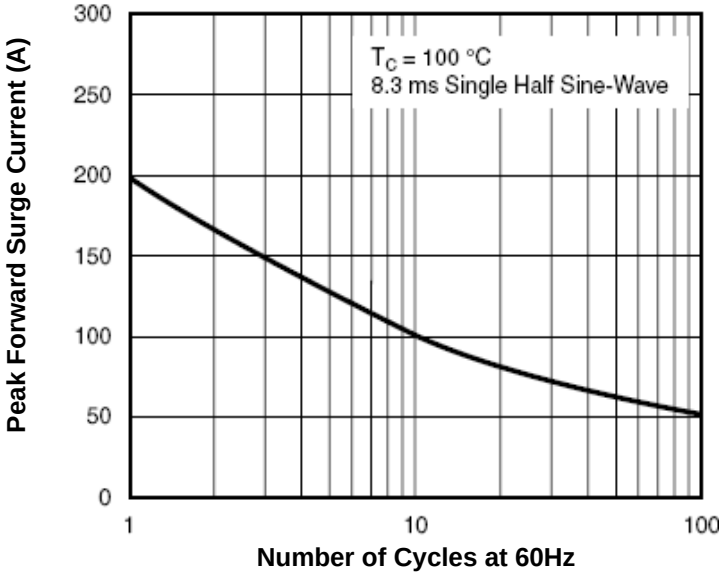


Fig.3- Typical Forward Characteristics per leg

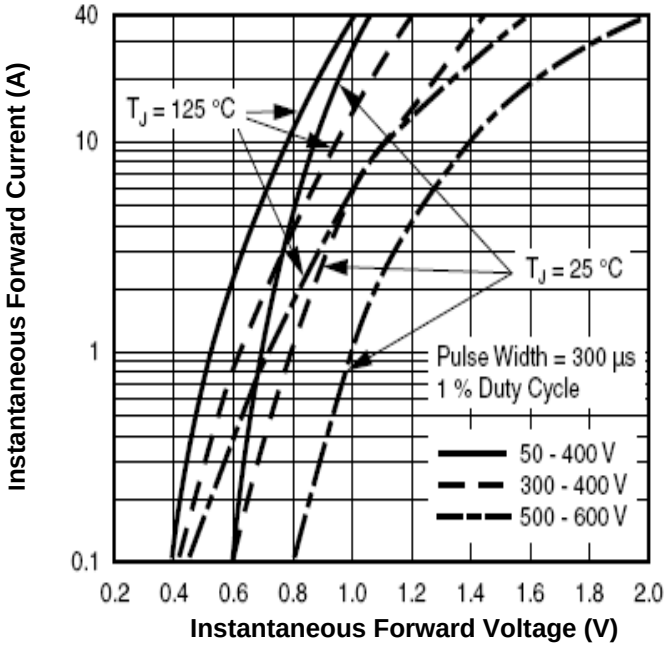


Fig.4-Typical Reverse Characteristics per leg

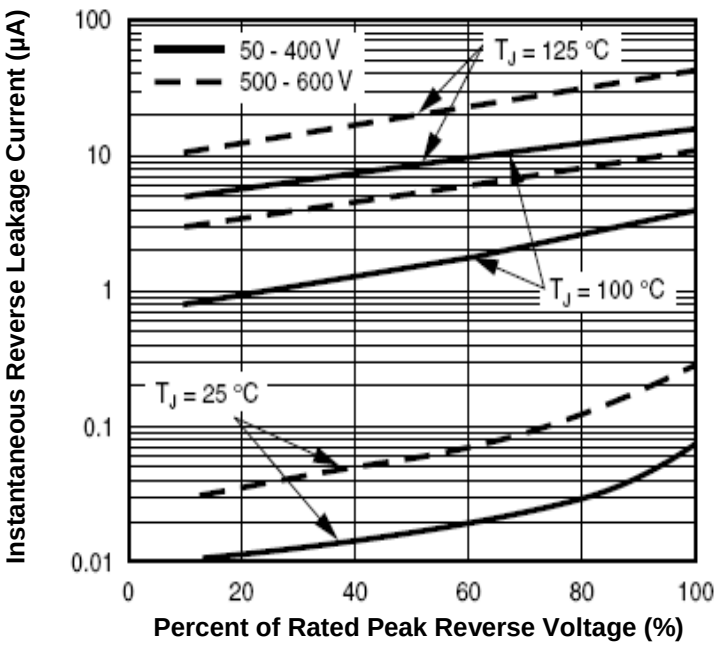
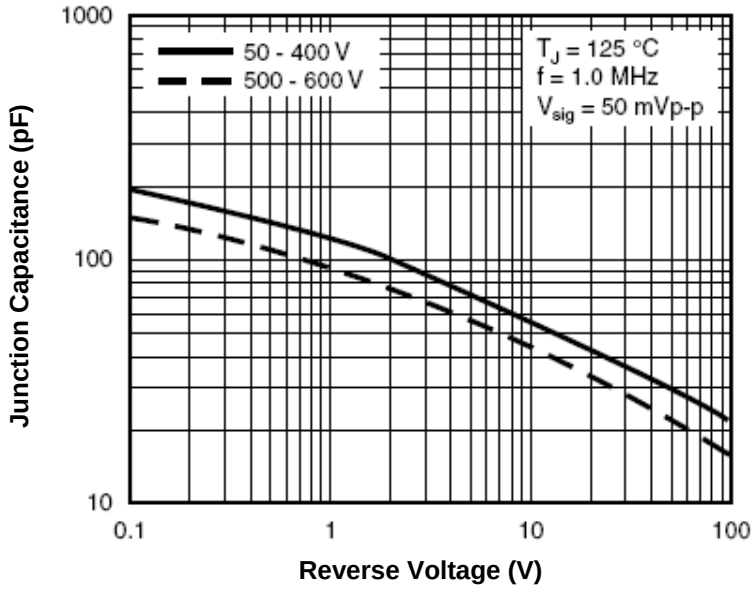
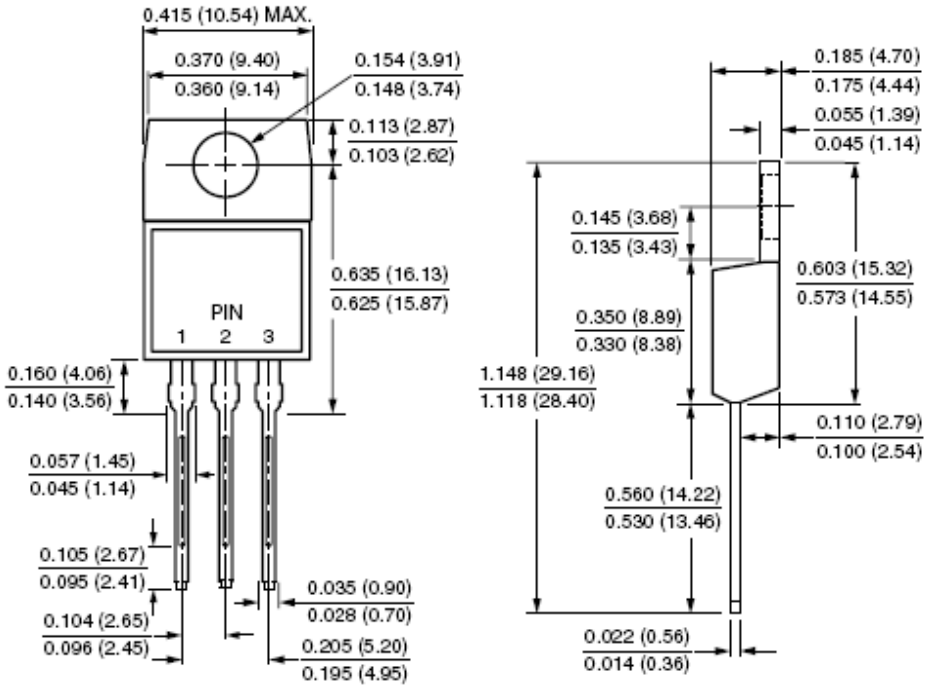
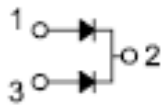


Fig.5- Typical Junction Capacitance per leg



Dimensions in inches (mm)





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