SFF2004

Superfast Recovery Rectifiers

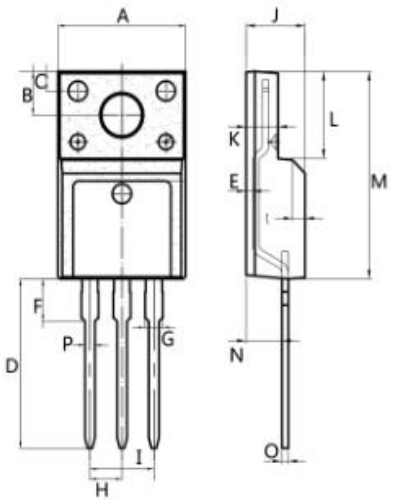
FEATURES

- Ultrafast 35 Nanosecond Recovery Time
- 150° C Operating Junction Temperature
- Popular ITO-220AB Package
- Epoxy Meets UL94 ,V0 @ 1/8″
- High Temperature Glass Passivated Junction
- Low Forward Voltage
- Low Leakage Current
- Reverse Voltage to 400 Volts
- Pb–Free Packages are Available

MECHANICAL DATA

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260° C Max. for 10 Seconds
- Shipped 50 units per plastic tube

ITO-220AB



Dim.	Min.	Max.
A	9.95	10.25
B	2.95	3.25
C	1.25	1.45
D	12.95	13.25
E	0.50	0.65
F	3.1	3.3
G	1.30	1.45
H	Typ 2.54	
I	Typ 5.08	
J	4.60	4.75
K	2.50	2. 65
L	6.35	6.55
M	15.4	16.0
N	2.75	3.05
O	0.48	0.52
P	0.76	0.84
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Characteristics		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	400	V
Working Peak Reverse Voltage		V_{RWM}	400	V
Maximum DC Blocking Voltage		V_{DC}	400	V
Maximum Average Forward Rectified Current	Per Leg	I_O	10	A
	Total		20	
Peak Forward Surge Current,8.3 ms Single Half Sine-wave		I_{FSM}	160	A
Operating Temperature Range		T_J	-50 to +150	°C
Storage Temperature Range		T_{STG}	-50 to +150	°C
Typical Thermal Resistance (Note1)		$R_{\theta JC}$	4	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V_F	Typ.	Max.	V
at I_F=3A	TA=25°C		0.91	-	
	TA=125°C		0.76	-	
at I_F=5A	TA=25°C		0.97	-	
	TA=125°C		0.83	-	
at I_F=10A	TA=25°C		1.08	1.3	
	TA=125°C		0.95	-	
Maximum Reverse Current at V_R=400V	TA=25°C	I_R	0.01	1	μA
	TA=125°C		5	-	μA
Maximum Reverse Recovery Time at I_F=0.5A, I_R=1A, I_{RR}=0.25A		Trr	-	35	ns

Note2:Pulse test: 300 μs pulse width, 1 % duty cycle

RATING AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

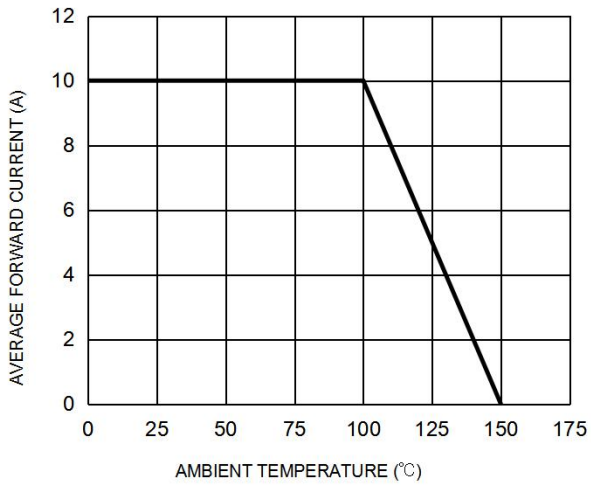


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

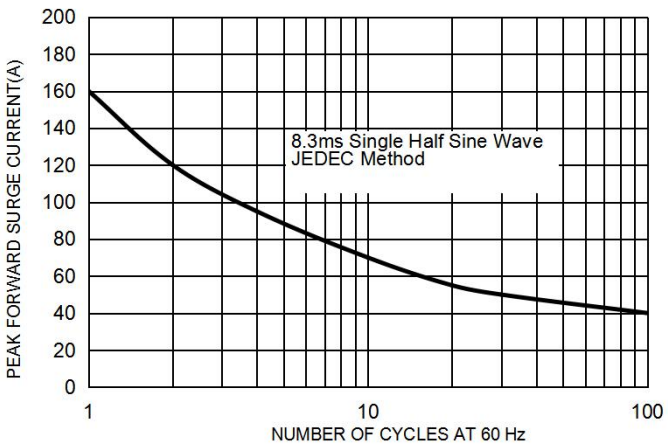


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

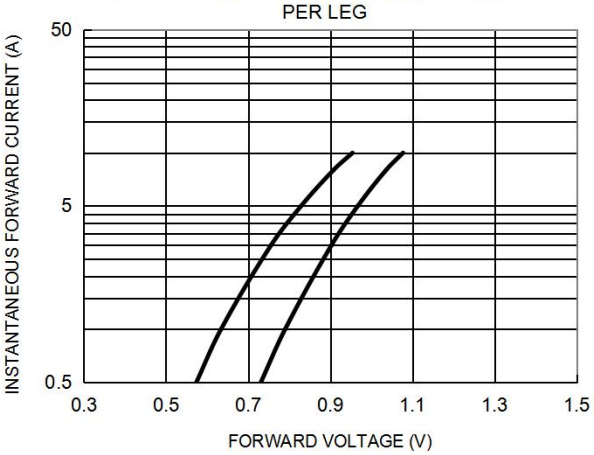


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG