

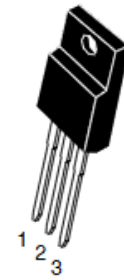
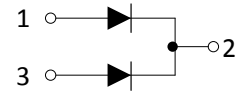
**Features**

- High Junction Temperature Capability
- Low Leakage Current
- Dual Diode Construction—Terminals 1 and 3 Must be Connected for Parallel Operation at Full Rating

Maximum Ratings (PER LEG)

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	Volts
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Average Rectified Forward Current Per Leg (Rate V_R) $T_C=125^{\circ}C$ Per Package	$I_F(AV)$	10 20	Amps
Nonrepetitive Peak Surge Current (8.3ms, half sine wave)	I_{FSM}	150	Amps
Peak Repetitive Reverse Surge Current (2.0 μ s, 1.0kHz)	I_{RRM}	2.5	Amps
Operating Junction Temperature	T_J	-65 to +175	$^{\circ}C$
Storage Temperature	T_{stg}	-65 to +175	$^{\circ}C$

**20Amp High Voltage
Supper Junction
Power Rectifier
100Volts**



ITO-220AB
CASE 221D

Thermal Parameters

Symbol	Parameter			Value	Unit
$R_{th(j-c)}$	Junction to case	TO-220FPAB	Per diode	4.5	$^{\circ}C/W$
			Total	3.8	
$R_{th(c)}$	Coupling	TO-220FPAB	Total	2.9	

When the diodes 1 and 2 are used simultaneously: $T_j(\text{diodes } 1) = P(\text{diode } 1) \times R_{th(j-c)}(\text{per diode}) + P(\text{diode } 2) \times R_{th(c)}$

Static Electrical Characteristics (per diode)

Symbol	Test conditions			Min_	Typ_	Max_	Unit
I_R^*	Reverse leakage current	$T_j = 25^{\circ}C$	$V_R = V_{RRM}$	-	-	0.1	mA
		$T_j = 125^{\circ}C$		-	5	10	
V_F^*	Forward voltage drop	$T_j = 25^{\circ}C$	$I_F = 10A$	-	-	0.76	V
		$T_j = 125^{\circ}C$		-	0.65	0.69	
		$T_j = 25^{\circ}C$	$I_F = 20A$	-	-	0.86	
		$T_j = 125^{\circ}C$		-	0.68	0.73	

*Pulse Test: Pulse Width = 380 μ s, Duty Cycle \leq 2.0%

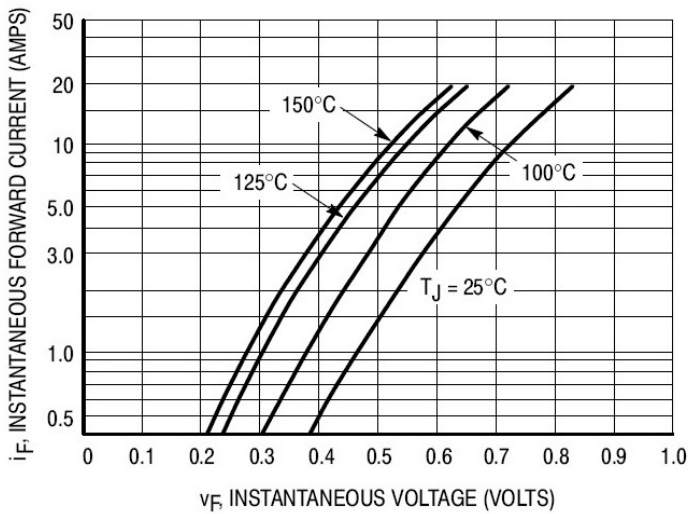


Figure 1. Typical Forward Voltage Per Diode

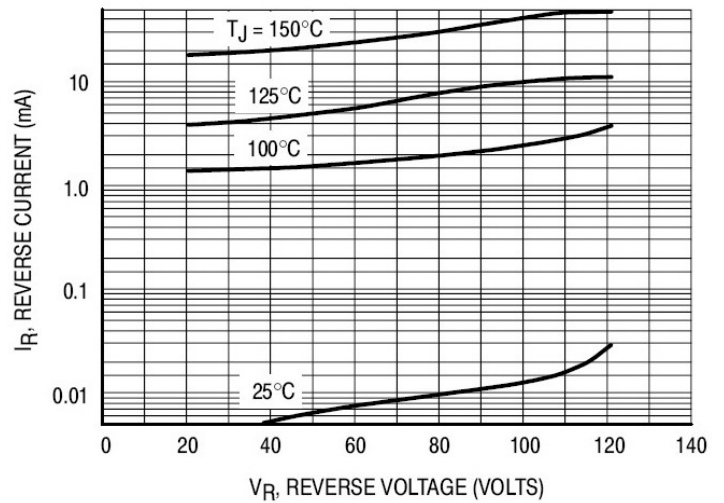


Figure 2. Typical Reverse Current Per Diode

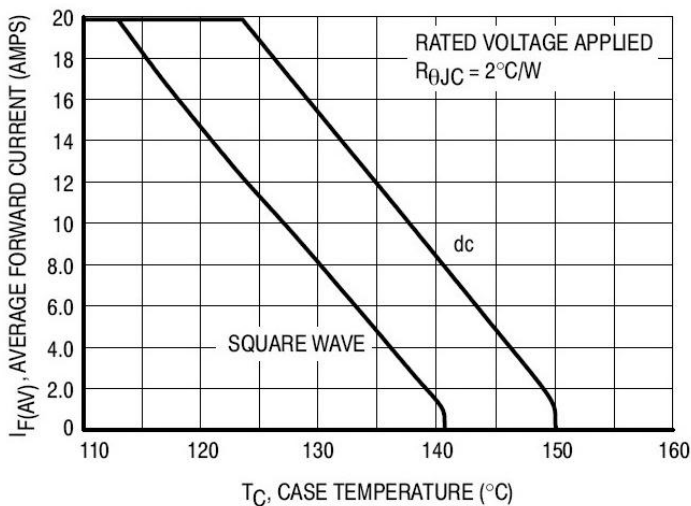


Figure 3. Current Derating, Case

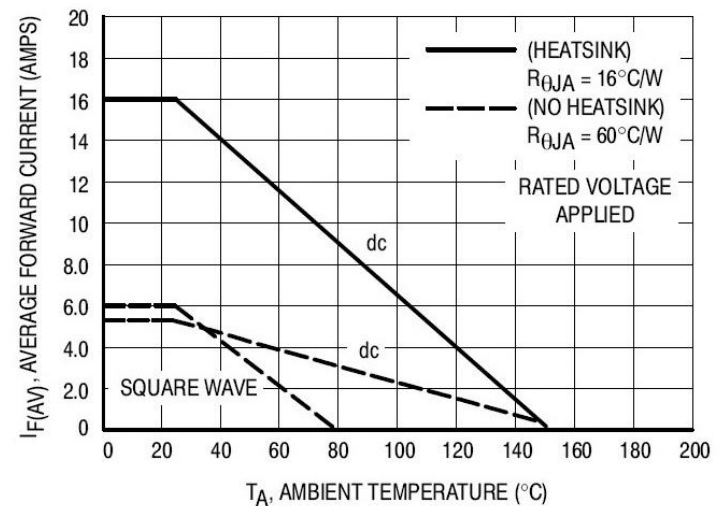


Figure 4. Current Derating, Ambient

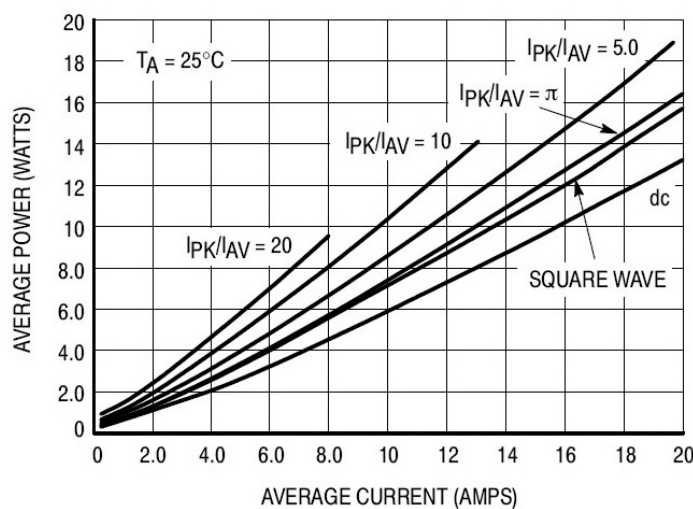
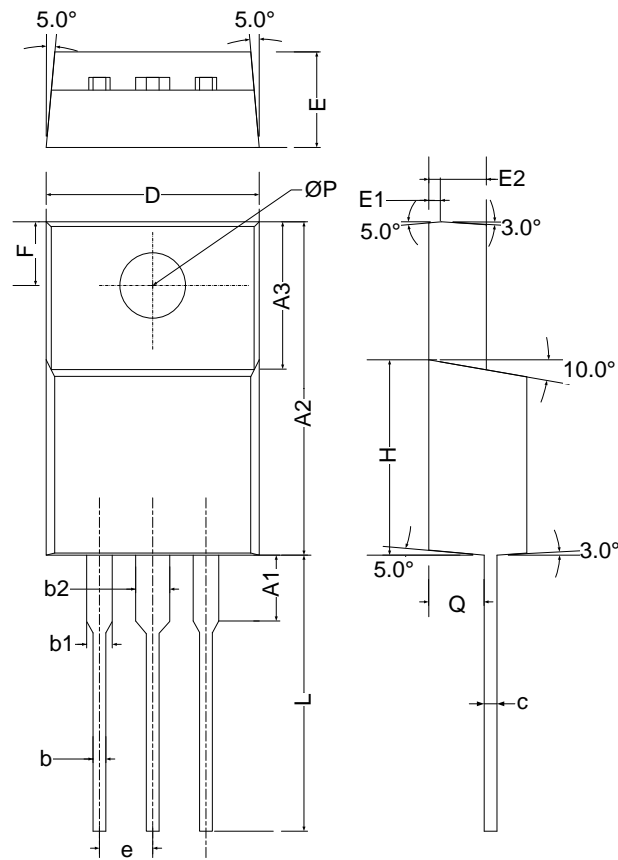


Figure 5. Average Power Dissipation and Average Current



Ref.	Dimensions (mm)		
	MIN	TYPE	MAX
A1	2.8	3.3	3.9
A2	14.7	15.3	15.65
A3	6.28	6.7	6.9
b	0.55	0.65	0.75
b1	0.99	1.20	1.30
b2	1.06	1.60	1.75
c	0.5	0.6	0.7
D	9.7	10.0	10.3
E	4.3	4.5	4.7
E1	0.5	0.6	0.9
E2	2.5	2.7	2.9
F	2.81	3.0	3.35
H	7.9	8.6	9.2
L	12.5	13.0	13.6
P	2.8	3.0	3.4
Q	2.4	2.6	2.8