

Maximum Ratings (Per Leg) (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitance load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	100	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _{RM}		
Average Rectified Output Current (Per Leg) (Total)	I _O	10 20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	200	A
Peak Repetitive Reverse Surge Current (2μs - 1Khz)	I _{RRM}	3	A
Non-Repetitive Avalanche Energy (T _J = +25°C, I _{AS} = 5A, L = 8.5mH)	E _{AS}	140	mJ
Repetitive Peak Avalanche Power (1μs, +25°C)	P _{ARM}	13,200	W
Isolation Voltage (ITO-220AB Only) From terminal to heatsink t = 3 sec.	V _{AC}	2000	V

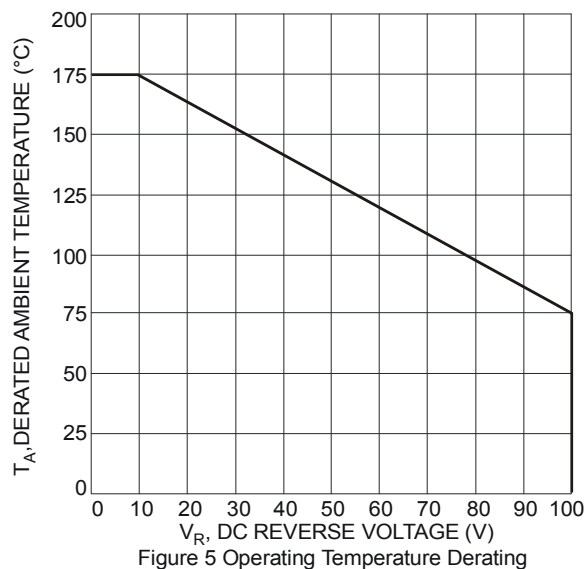
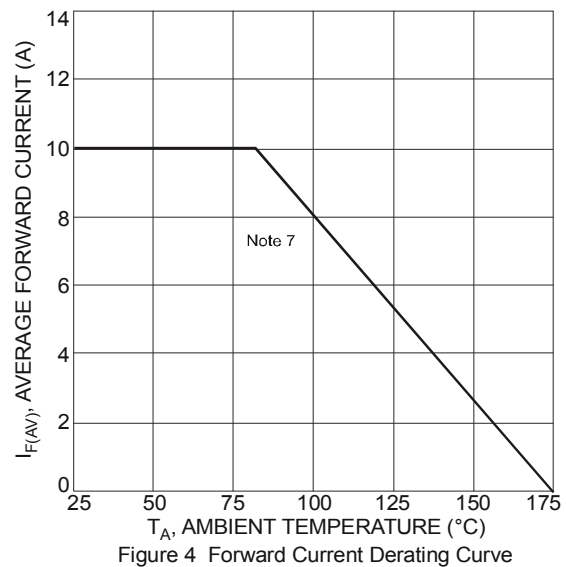
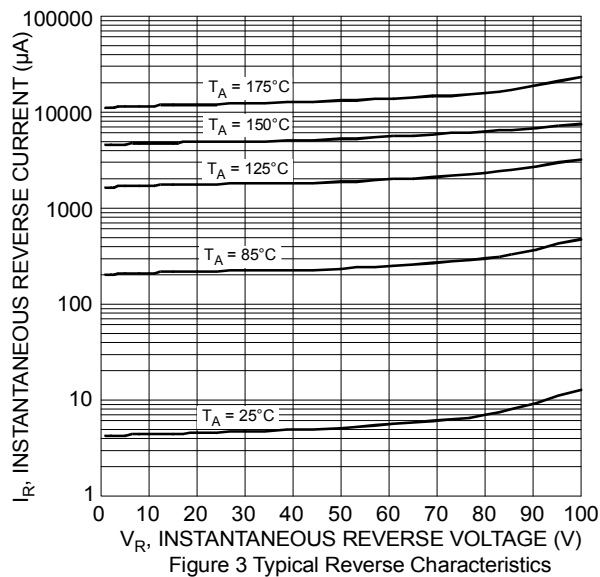
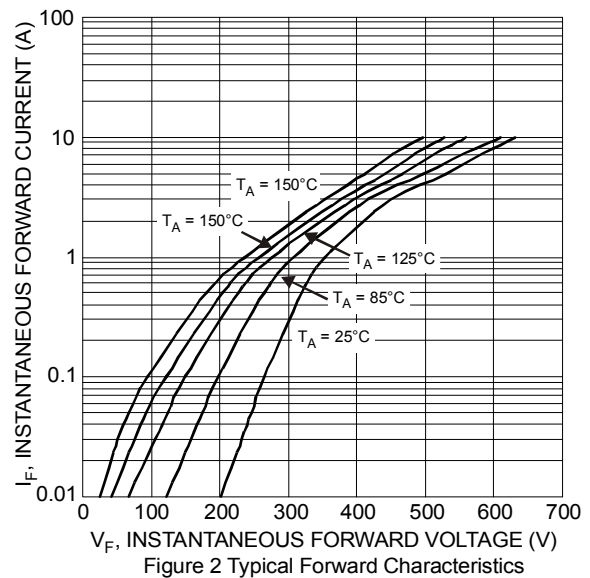
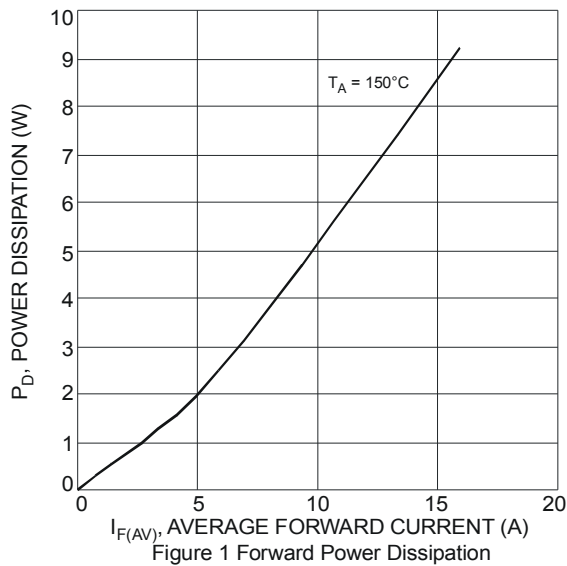
Thermal Characteristics (Per Leg)

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Package = TO-220AB Package = ITO-220AB Package = TO263 (D ² Pak)	R _{θJC}	2 4 2	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175	°C

Electrical Characteristics (Per Leg) (@T_A = +25°C, unless otherwise specified.)

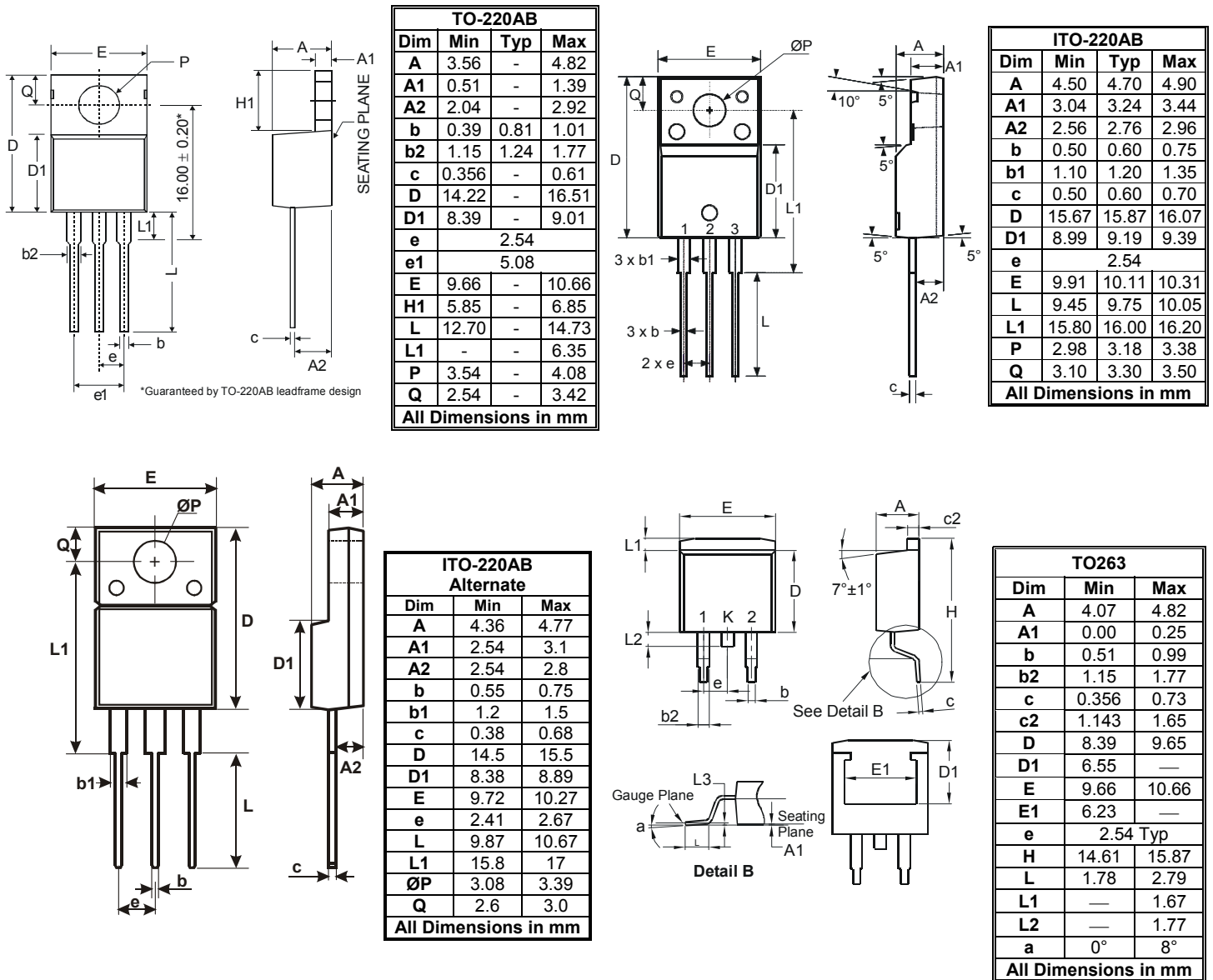
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V _F	—	0.57	0.70 0.63 0.82	V	I _F = 10A, T _J = +25°C I _F = 10A, T _J = +125°C I _F = 20A, T _J = +25°C
Leakage Current (Note 6)	I _R	—	—	0.5 25	mA	V _R = 100V, T _J = +25°C V _R = 100V, T _J = +125°C

Notes: 6. Short duration pulse test used to minimize self-heating effect.
 7. Using heatsink (by Black Aluminum 45mm*20mm*12mm)



Package Outline Dimensions

Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for latest version.



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