



12 AMP SUPER-EFFICIENT RECTIFIERS

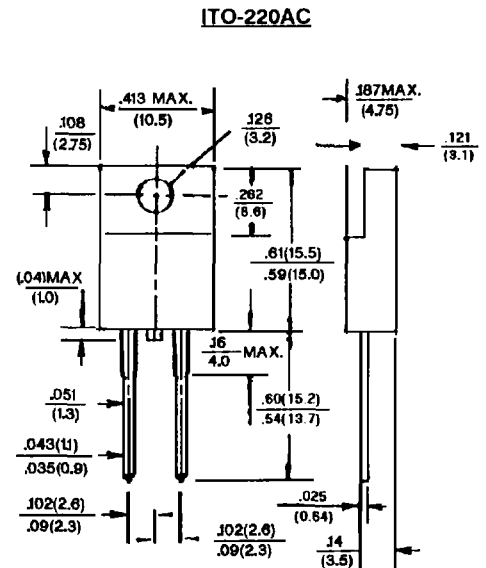
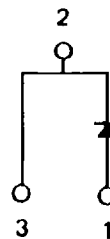
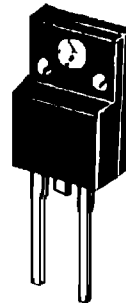
Fully-Insulated

FEATURES:

- Low switching noise
- Low forward voltage drop
- Low thermal resistance
- High current capability
- High switching capability
- High surge capability
- High reliability

MECHANICAL DATA

- Case: ITO-220 molded plastic (fully-insulated)
- Epoxy: UL94V-0 rate flame retardant
- Terminal: MIL-STD-202E, method 208C guaranteed
- Mounting Position: Any
- Weight: 1.7 grams



Dimensions in millimeters

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATING @ T _A =25°C (unless otherwise specified)	SYMBOL						UNITS
Series Number		10SPR01	10SPR02	10SPR03	10SPR04	10SPR05	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	100	200	300	400	500	Volts
Maximum RMS Voltage	V _{RMS}	70	140	210	280	350	
Maximum DC Blocking Voltage	V _{DC}	100	200	300	400	500	
Maximum Average Forward Rectified Output Current @ 110°C	I _(AV)	12					Amps
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	120					
Max. Instantaneous Forward Voltage at 12 Amps	V _F	1.05		1.20			Volts
Maximum DC Reverse Current @: T _C = 25°C at Rated DC Blocking voltage T _C = 100°C	I _R			10 500			μA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	35		45			nS
Typical Junction Capacitance (Note 2)	C _J			45			pf
Thermal Resistance, Junction to Case	R θ _{JC}			1.5			°C/W
Operating & Storage Temperature Range	T _J , T _{STG}	- 65 to + 150					°C

NOTES: (1) Reverse recovery test conditions: I_{FM} = 8A, -di/dt = 50A/μS, T_J = 25°C
(2) Measured at 1MHz & applied reverse voltage of 4 volts.

