



GLASS PASSIVATED RECTIFIER

16AF05C THRU 16AF10C

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

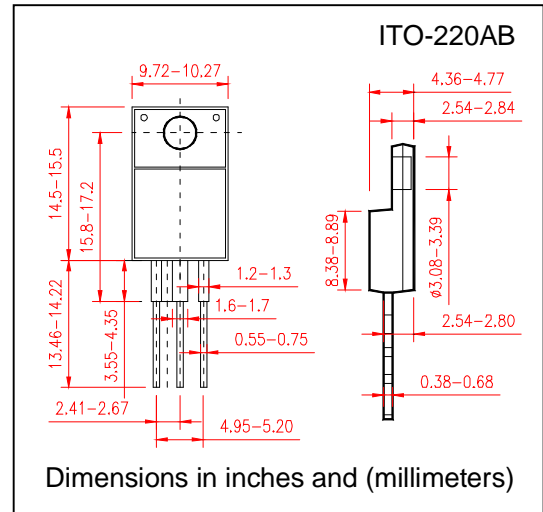
16.0 Ampere

FEATURES

- Glass passivated chip junction
- Low power loss, high efficiency
- Low leakage
- High current capacity, high surge capacity
- High temperature soldering guaranteed
- 200°C/10 second, 0.16"(4.06mm) lead length from case

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Marked on package
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.064ounce, 1.81 gram



MAXIMUM RATINGS AND 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%

	SYMBOLS	16AF05C	16AF1C	16AF2C	16AF4C	16AF6C	16AF8C	16AF10C	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current $T_A T_C=100^\circ\text{C}$	$I_{(AV)}$	16.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	175							Amps
Maximum Instantaneous Forward Voltage at 8.0A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage per element	$T_A = 25^\circ\text{C}$	10							μA
	$T_A = 125^\circ\text{C}$	300							
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	55							pF
Typical Thermal Resistance (NOTE 1)	$R_{\theta JC}$	2.5							$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	(-55 to +150)							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	(-55 to +150)							$^\circ\text{C}$

Notes:

1. Unit mounted on heatsink



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RATING AND CHARACTERISTIC CURVES 16AF05C THRU 16AF10C

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

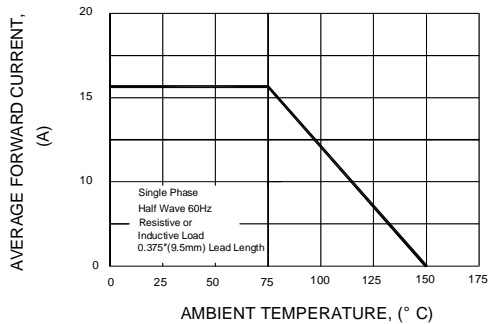


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

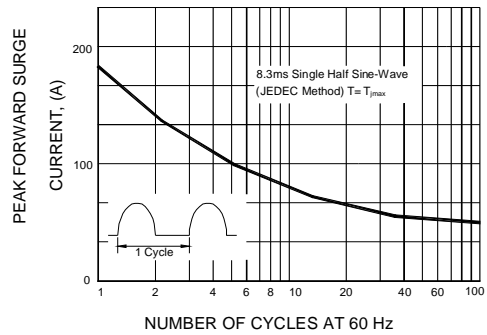


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

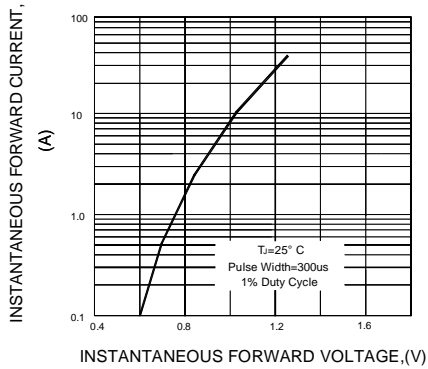


FIG.4-TYPICAL REVERSE CHARACTERISTICS

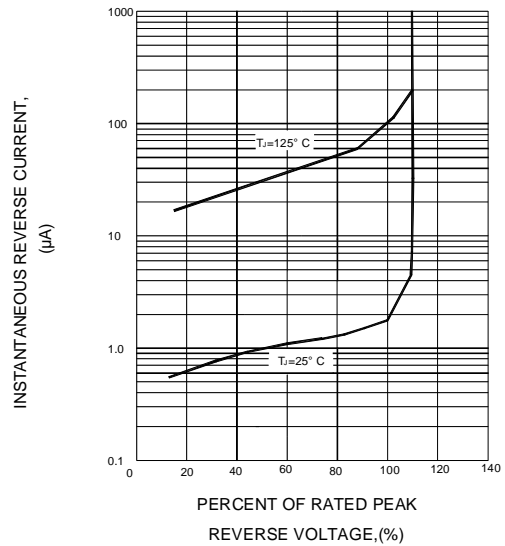


FIG.5-TYPICAL JUNCTION CAPACITANCE

