



Dabiao Electronic

US3A THRU US3M

SURFACE MOUNT ULTRA FAST RECTIFIER

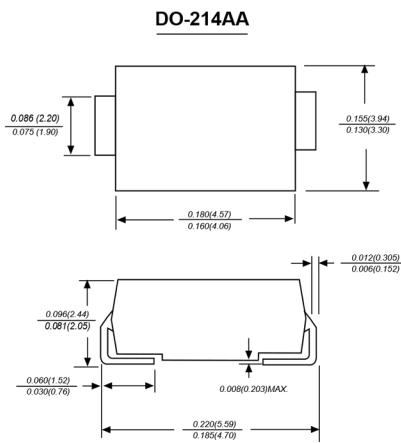
Reverse Voltage - 50 to 1000 Volts Forward Current -3.0 Amperes

FEATURES

- Ideal for surface mount pick and place application
- Low profile package
- Built-in strain relief
- High surge capability
- Glass passivated chip
- Ultra fast recovery for high efficiency
- High temperature soldering guaranteed:
260°C/10sec/at terminal

MECHANICAL DATA

- Terminal: Plated leads solderable per MIL-STD 202E, method 208C
 - Case: Molded with UL-94 Class V-O recognized flame retardant epoxy
 - Polarity: Color band denotes cathode
- Weight:** 0.09 grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Single-phase, half-wave, 60Hz, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

RATINGS	SYMBOL	US 3A	US 3B	US 3D	US 3G	US 3J	US 3K	US 3M	UNITS					
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V					
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V					
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V					
Maximum Average Forward Rectified Current ($T_a=75^\circ\text{C}$)	$I_{F(AV)}$	3.0						A						
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I_{FSM}	100						A						
Maximum Instantaneous Forward Voltage (at rated forward current)	V_F	1.0		1.3		1.7		V						
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ (at rated DC blocking voltage) $T_a=100^\circ\text{C}$	I_R	10.0 250						μA						
Maximum Reverse Recovery Time (Note 1)	t_{rr}	50			75			nS						
Typical Junction Capacitance (Note 2)	C_J	45						pF						
Typical Thermal Resistance (Note 3)	$R_\theta(ja)$	25						$^\circ\text{C}/\text{W}$						
Storage and Operation Junction Temperature	T_{STG}, T_J	-50 to +150						$^\circ\text{C}$						

Note:

- 1.Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.
- 2.Measured at 1.0 MHz and applied voltage of 4.0V_{dc}
- 3.Thermal resistance from junction to terminal mounted on $0.6\times 0.6''$ ($16 \times 16 \text{ mm}$) copper pad area



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RATINGS AND CHARACTERISTIC CURVES US3A THRU US3M

