Kingtronics®

US2A THRU US2M

SURFACE MOUNT HIGH EFFICIENCY RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts **FORWARD CURRENT** 2.0 Ampere

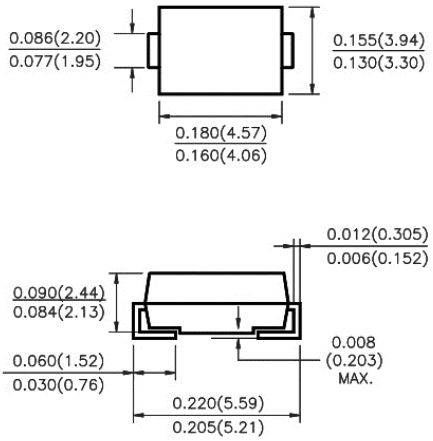
FEATURES

Plastic package has UL flammability Classification 94V-0
Glass Passivated chip junction
Built in strain relief
Fast switching speed for high efficiency
High temperature soldering guaranteed: 250℃/10 seconds

MECHANICAL DATA

Case: JEDED DO-214AA transfer molded plastic
Terminals: Solder plated, Solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end

DO-214AA（SMB）



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER		SYMBOL	US2A	US2B	US2D	US2G	US2J	US2K	US2M	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 At T_L =105℃ (NOTE 1)		$I_{(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	50							Amps
Maximum instantaneous forward voltage at 2.0A		V_F	1.0			1.3	1.7			VOLTS
Maximum DC Reverse Current at Rated DC blocking voltage	T_A=25℃	I_R	5.0							uA
	T_A=125℃		100							
Maximum Reverse Recovery Time Test conditions I_F=0.5A, I_R=1.0A, I_{RR}=0.25A		t_{rr}	50			100				ns
Typical Junction Capacitance(Measured at 1.0MHz and applied reverse voltage of 4.0V)		C_J	50			30				pF
Typical Thermal Resistance (NOTE 1)		$R_{\theta JA}$	75							℃/W
		$R_{\theta JL}$	17							
Operating Junction Temperature		T_J	-55 to +150							℃
Storage Temperature Rang		T_{STG}	-55 to +150							℃

1- Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.3 × 0.3″ (8.0 × 8.0mm) copper pad areas

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

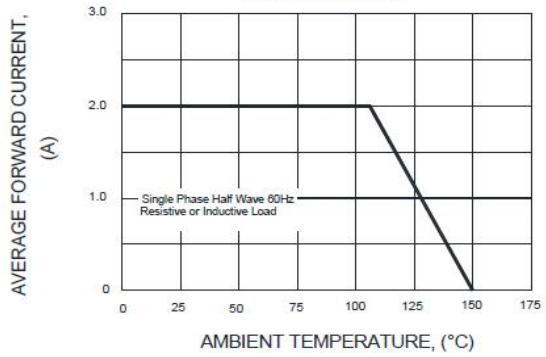


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

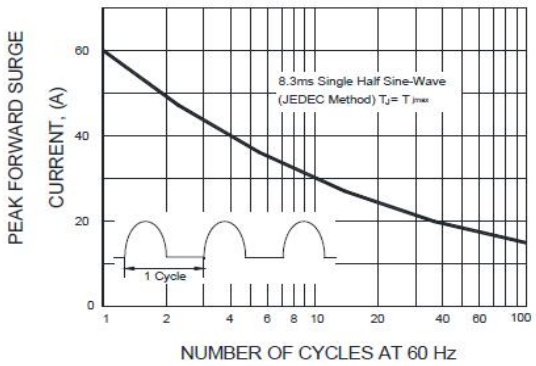


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

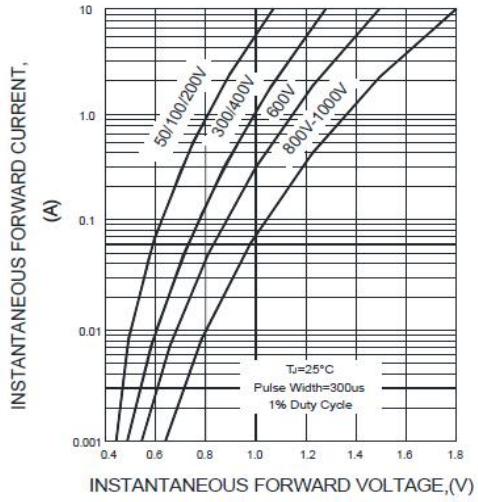


FIG.4-TYPICAL REVERSE CHARACTERISTICS

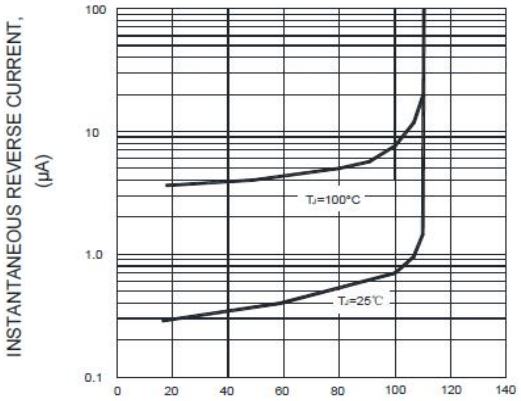
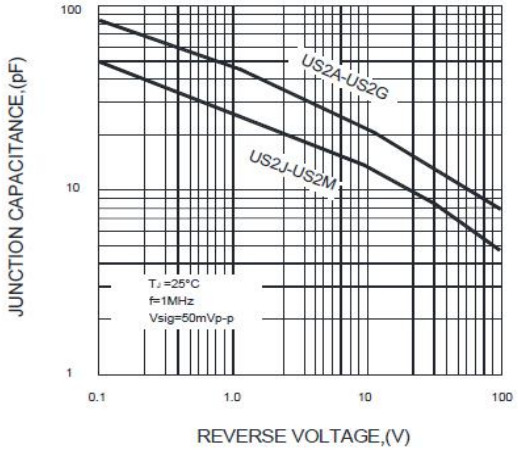
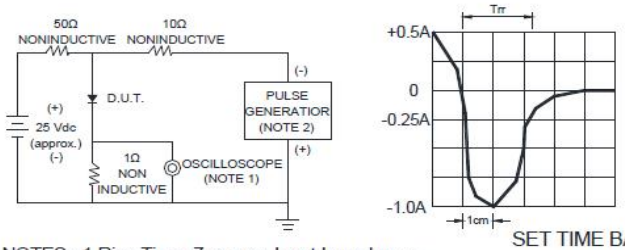


FIG.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1.Rise Time=7ns max. Input Impedance= 1 magohm. 22pF
2.Rise time=10ns max. Source Impedance= 50 ohms

SET TIME BASE FOR 50/100ns/cm

Note: Specifications are subject to change without notice.