



# WEET Technology Company Limited

## High Efficiency Rectifiers

**US2A THRU US2M**

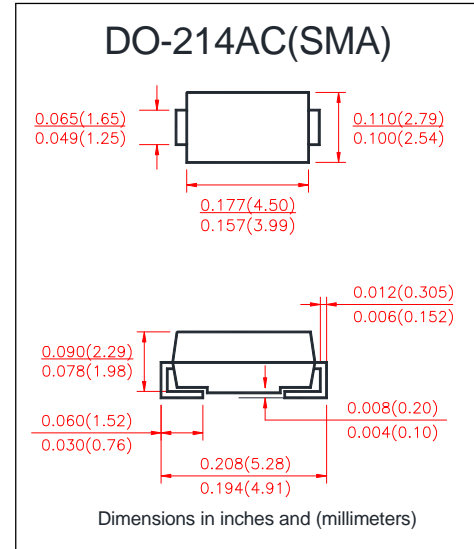
**VOLTAGE RANGE** 50 to 1000 Volts  
**CURRENT** 2.0 Ampere

### 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°C/10 seconds

### MECHANICAL DATA

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



### 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%.

### MAXIMUM RATINGS & THERMAL CHARACTERISTICS

PARAMETELS	SYMBOLS	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 $T_L=90^\circ\text{C}$ (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 at	$I_R$	$T_A=25^\circ\text{C}$ 5.0							$\mu\text{A}$
		$T_A=125^\circ\text{C}$ 100							
Maximum Reverse Recovery Time Test conditions $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{RR}=0.25\text{A}$	$t_{rr}$	50			75				
Typical Junstion Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	$C_J$	50			30				pF
Typical Thermal Resistance (NOTE 1)	$R_{\theta JA}$	50							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	17							
Operating Junction Temperature	$T_J$	(-55 to +150)							$^\circ\text{C}$
Storage Tempetature Rang	$T_{STG}$	(-55 to +150)							$^\circ\text{C}$

#### Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.2×0.2" (5.0 × 5.0mm) copper pad areas.



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### RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

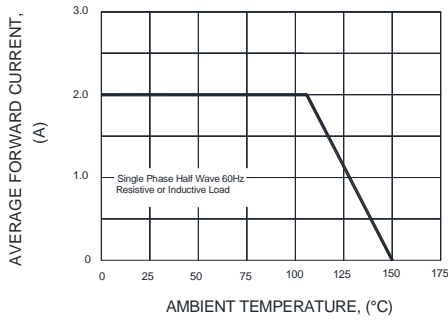


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

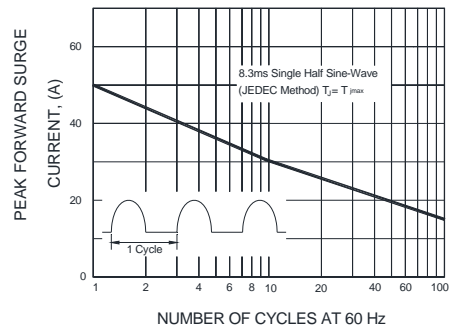


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

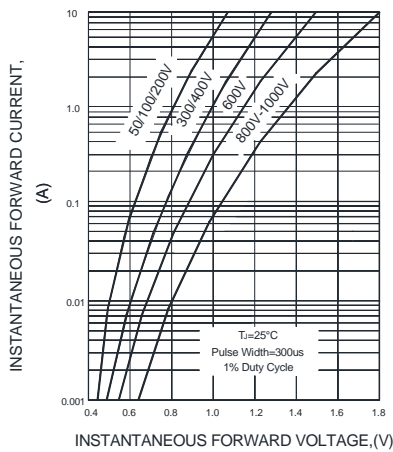


FIG.4-TYPICAL REVERSE CHARACTERISTICS

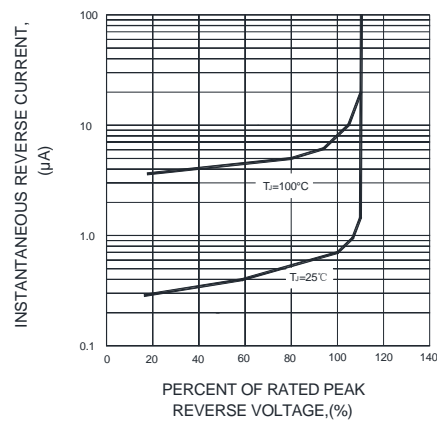
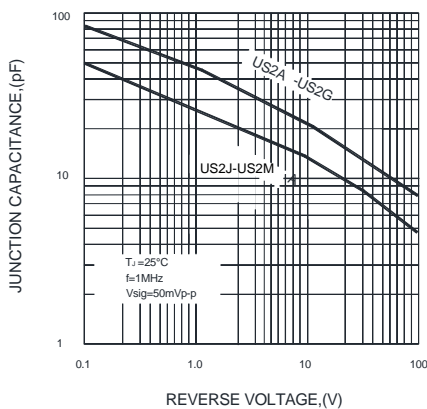
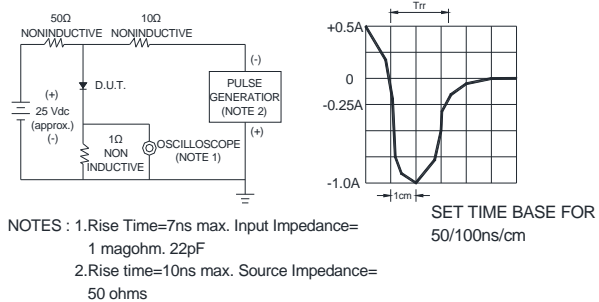


FIG.5-TYPICAL JUNCTION CAPACITANCE



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



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.