

# US1A-M

## SURFACE MOUNT ULTRAFAST EFFICIENT RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

### Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Glass passivated chip junctions
- Ultrafast recovery times for high efficiency
- Low forward voltage, low power loss
- High temperature soldering guaranteed:
- 260°C/10 seconds on terminals
- RoHS compliant package

### Mechanical Data

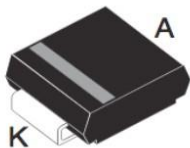
- Case: JEDEC DO-214AC molded plastic body
- Terminals: Solder plated, solderable per

MIL-STD-750, Method 2026

- Polarity: Color band denotes cathode end
- Weight: 0.063 gram

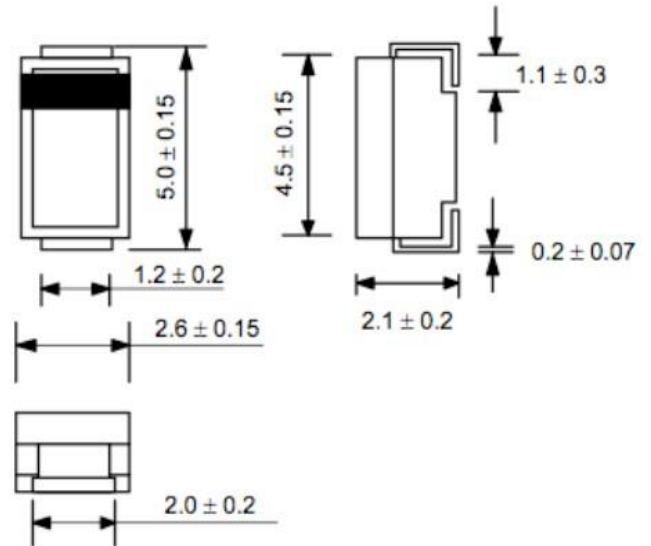
### Packing & Order Information

5,000/Reel



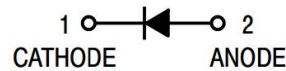
**RoHS**  
COMPLIANT

### SMA (DO-214AC)



Dimensions in millimeters

### Graphic symbol



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		US1A	US1B	US1D	US1G	US1J	US1K	US1M	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RWS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	100	V
Maximum average forward rectified current at $T_L=110^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak forward surge current 8.3ms single half-sine-wave	$I_{FSM}$	30							A

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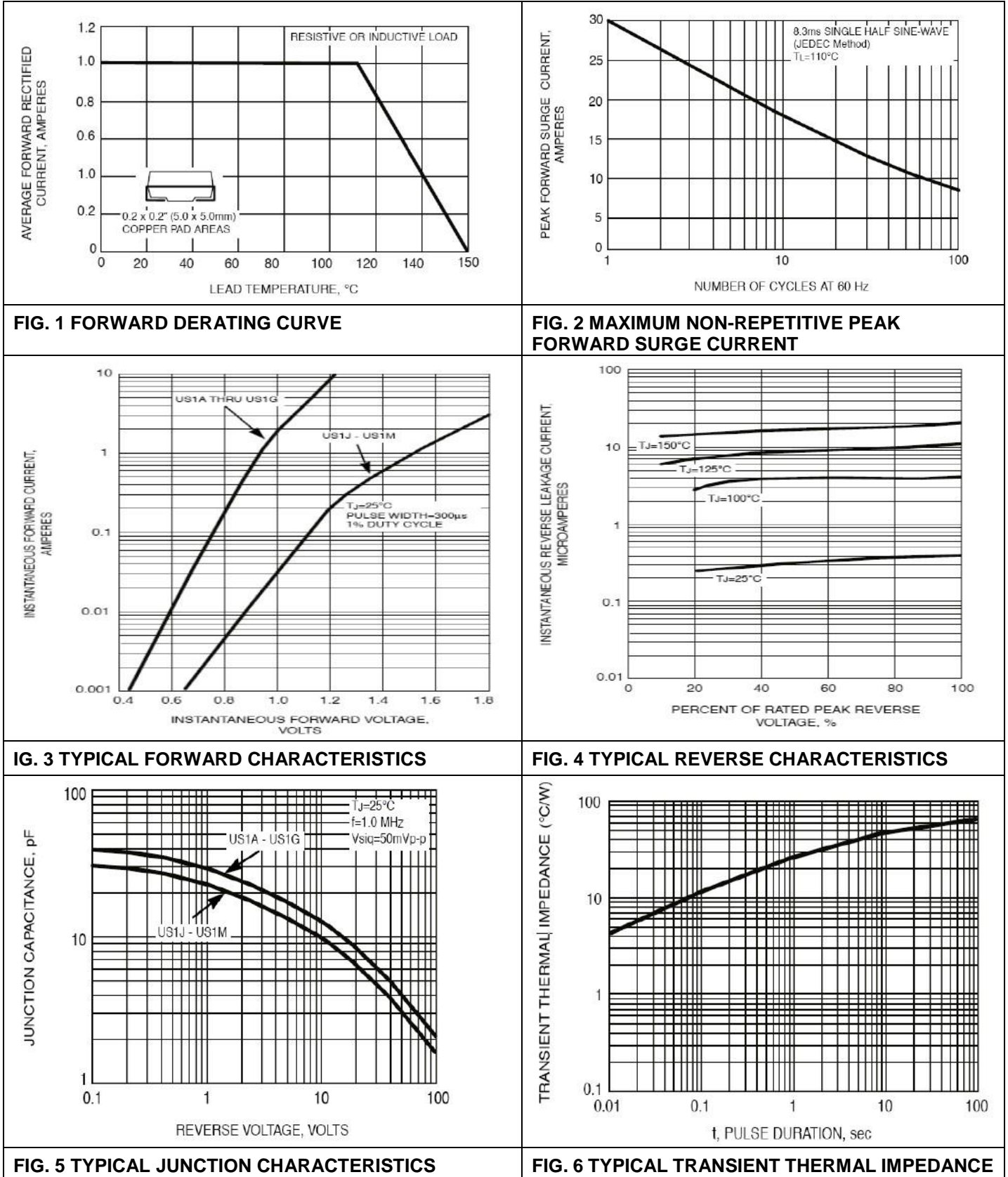
		US1A	US1B	US1D	US1G	US1J	US1K	US1M	UNITS
Maximum instantaneous forward voltage at $I_{FM}=2.0A$	$V_F$	1.0			1.4	1.7			V
Maximum DC reverse current $T_J=25^\circ C$ At rated DC blocking voltage $T_A=100^\circ C$	$I_R$				10 50				$\mu A$
Maximum reverse recovery time	$T_{rr}$	50					75		nS
Typical junction capacitance	$C_j$	17					15		pF
Maximum thermal resistance	$R_{\theta JA}$				35				$^\circ C/W$
	$R_{\theta JL}$				27				$^\circ C/W$
Storage temperature range	$T_{STG}$				-55 to +150				$^\circ C$

**NOTE** : 1.Pulse test: Pulse width 300us, duty cycle 1%

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#### ■ Ratings and Characteristic Curves



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