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

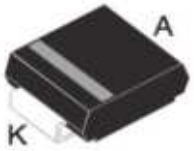
- Case: JEDEC DO-214AC molded plastic body
- Terminals: Solder plated, solderable per

MIL-STD-750,Method 2026

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

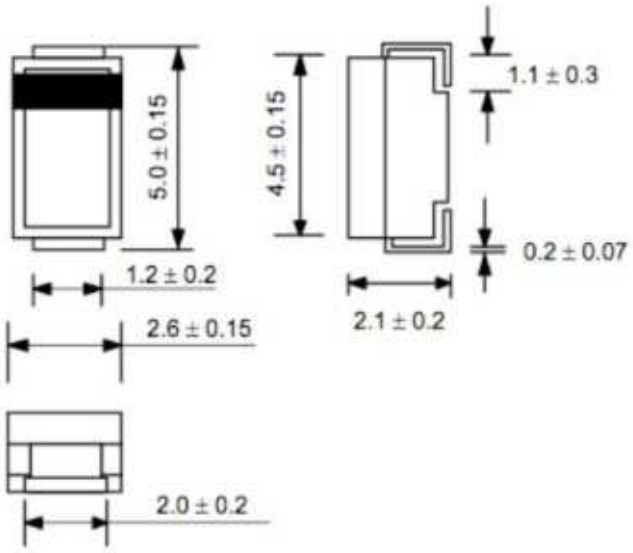
Packing & Order Information

5,000/Reel



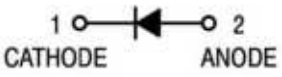
RoHS
COMPLIANT

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°C	$I_{F(AV)}$	1							A
Peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	30							A

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Ratings at 25°C ambient temperature unless otherwise specified									
		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 TJ=25°C At rated DC blocking voltage TA=100°C	I_R	10 50							uA
Maximum reverse recovery time	Trr	50				75			nS
Typical junction capacitance	Cj	17				15			pF
Maximum thermal resistance	$R_{\theta JA}$	35							°C/W
	$R_{\theta JL}$	27							°C/W
Storage temperature range	T_{STG}	-55 to +150							°C

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

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■Ratings and Characteristic Curves

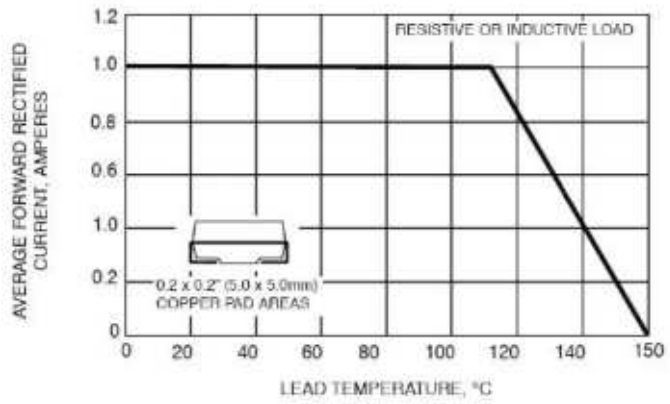


FIG. 1 FORWARD DERATING CURVE

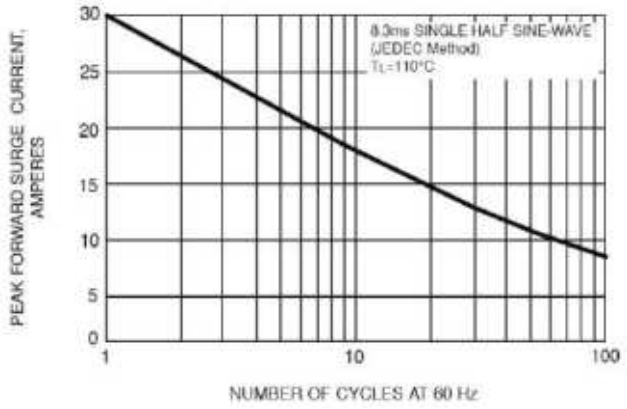
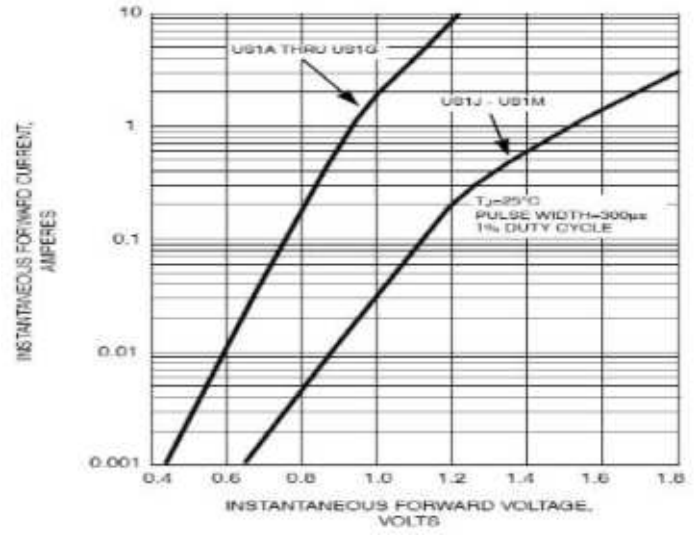


FIG. 2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



IG. 3 TYPICAL FORWARD CHARACTERISTICS

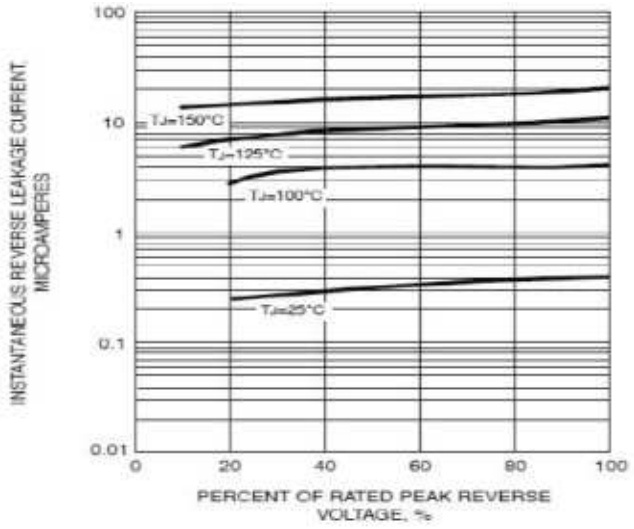


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

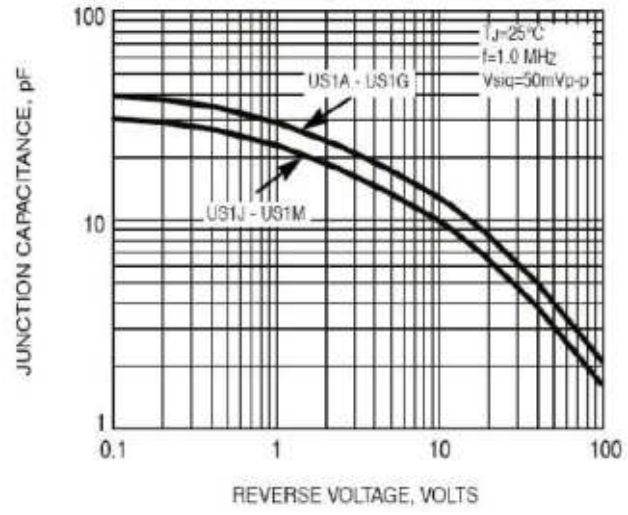


FIG. 5 TYPICAL JUNCTION CHARACTERISTICS

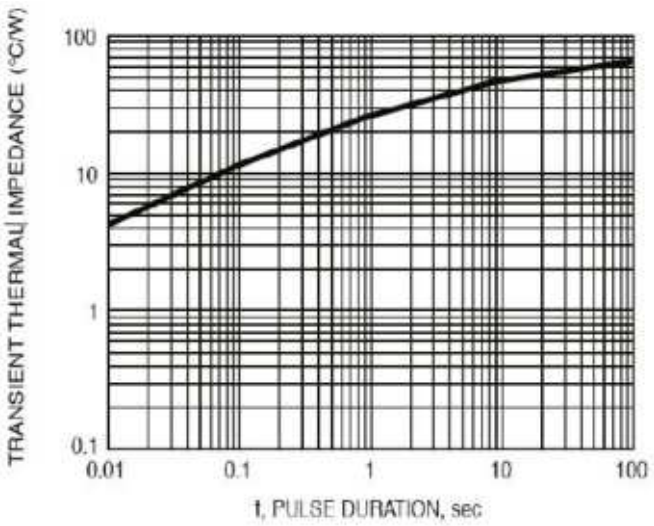


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

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