

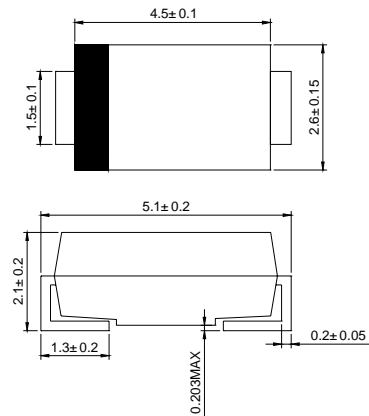


**REVERSE VOLTAGE: 50 - 1000 V**  
**FORWARD CURRENT: 2.0 A**

### Features

- ◇ Plastic package has underwriters laboratories flammability classification 94V-0
- ◇ For surface mount applications
- ◇ Glass passivated chip junctions
- ◇ Low profile package
- ◇ Easy pick and place
- ◇ Ultrafast recovery times for high efficiency
- ◇ Low forward voltage, low power loss
- ◇ Built-in strain relief, ideal for automated placement
- ◇ High temperature soldering: 250°C/10 seconds on terminals

### DO-214AC(SMA)



Dimensions in millimeters

### Mechanical Data

- ◇ Case: JEDEC DO-214AC, molded plastic body over passivated chip
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.002 ounces, 0.064 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

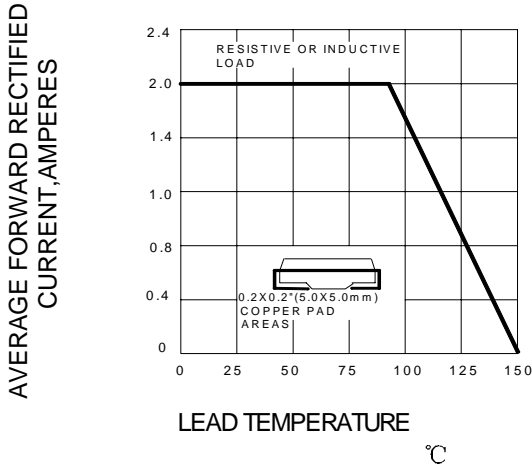
Ratings at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	US2AA	US2BA	US2DA	US2GA	US2JA	US2KA	US2MA	UNITS
<b>Marking code</b>		US2A	US2B	US2D	US2G	US2J	US2K	US2M	
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	1000	V
Maximum average forward rectified current @ $T_L=90^\circ C$	$I_{F(AV)}$	2.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Maximum instantaneous forward voltage at 2A	$V_F$		1.0		1.3		1.7		V
Maximum DC reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$				10				$\mu A$
					350				
Maximum reverse recovery time at $I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$	$t_{rr}$		50				75		ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$		50				30		pF
Maximum thermal resistance (NOTE1)	$R_{\theta JA}$ $R_{\theta JL}$				50				$^\circ C/W$
					18				
Operating temperature range	$T_J$	-55-----+150							$^\circ C$
Storage temperature range	$T_{STG}$	-55-----+150							$^\circ C$

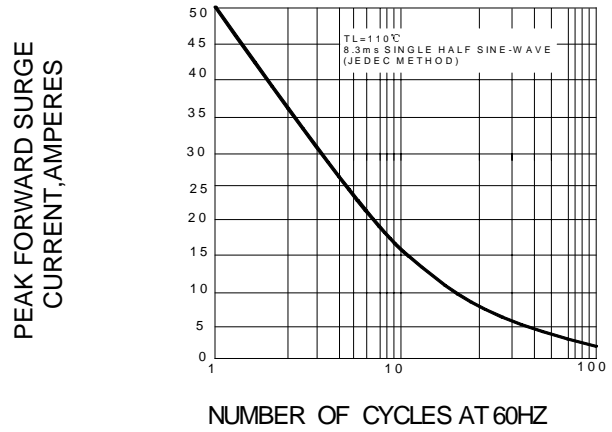
NOTE: 1.P.C.B.mounted on 0.2X0.2"(5.0X5.0mm)copper pad area

## Ratings AND Characteristic Curves

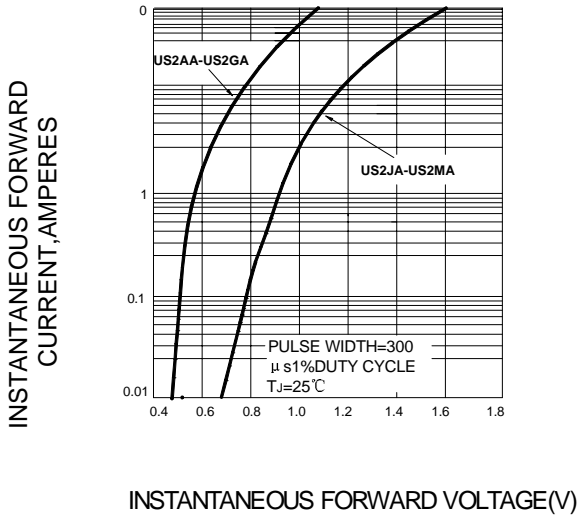
**FIG.1 – FORWARD CURRENT DERATING CURVE**



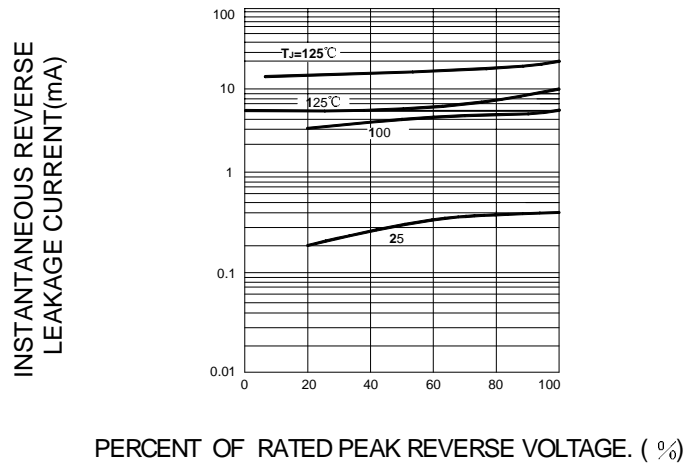
**FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



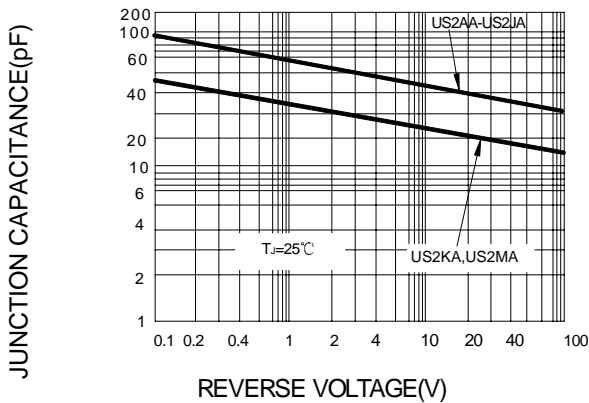
**FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



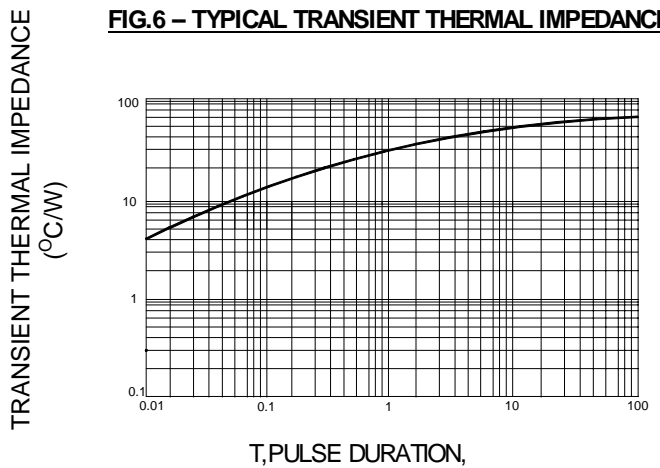
**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5 – TYPICAL JUNCTION CAPACITANCE**



**FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE**



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMA	5000/REEL	80000	36X30.6X31	12.00	11.00