

SURFACE MOUNT RECTIFIERS

**REVERSE VOLTAGE: 50 - 1000 V
FORWARD CURRENT: 3.0 A**

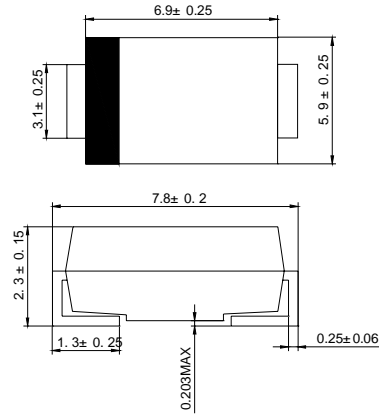
FEATURES

- Plastic package has underwriters laboratories flammability classification 94V-0
- For surface mount applications
- 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

MECHANICAL DATA

- Case: JEDEC DO-214AB, molded plastic body over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.007 ounces, 0.21 gram

DO-214AB(SMC)



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		US3A	US3B	US3D	US3G	US3J	US3K	US3M	UNITS
		US3A	US3B	US3D	US3G	US3J	US3K	US3M	
Device marking code		US3A	US3B	US3D	US3G	US3J	US3K	US3M	
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 at $T_L=110^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	100							A
Maximum instantaneous forward voltage at 3A	V_F	1.0				1.7			V
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	10 500							μA
Maximum reverse recovery time at $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{tr}=0.25\text{A}$	t_{rr}	50				75			ns
Typical junction capacitance at 4.0V, 1MHz	C_J	70				50			pF
Maximum thermal resistance (NOTE1)	R_{JA}	25							$^\circ\text{C/W}$
Operating temperature range	T_J	-55-----+150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55-----+150							$^\circ\text{C}$

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

FIG.1 – FORWARD CURRENT DERATING CURVE

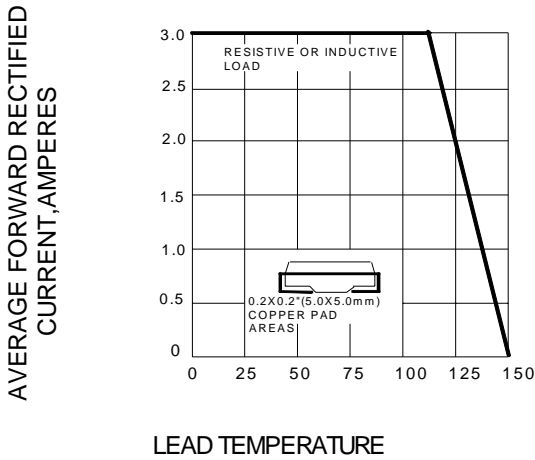


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

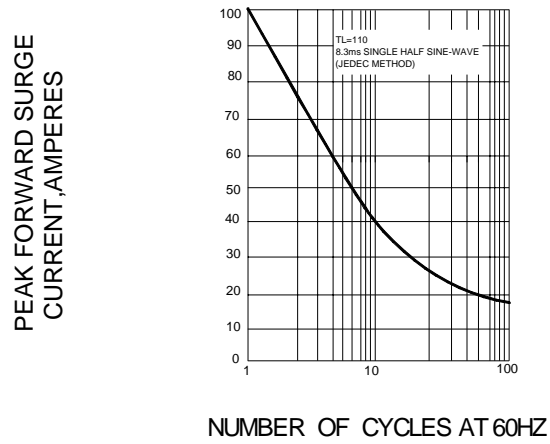


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

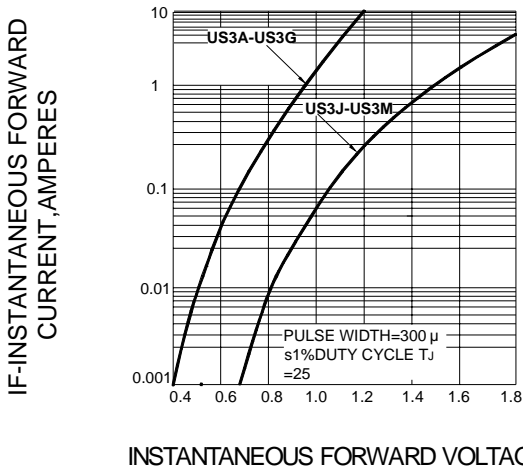


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

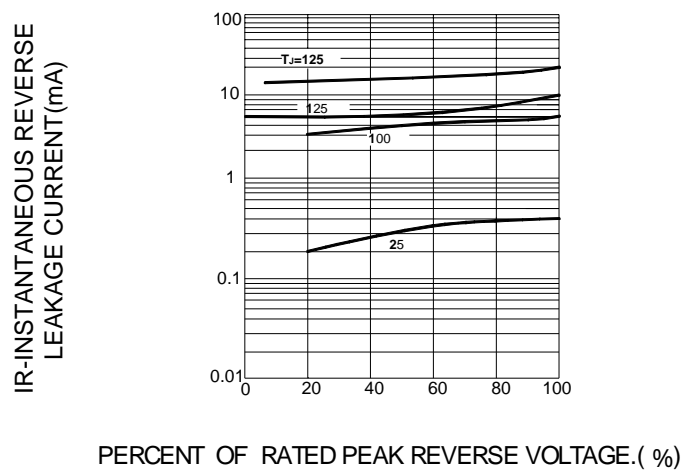


FIG.5 – TYPICAL JUNCTION CAPACITANCE

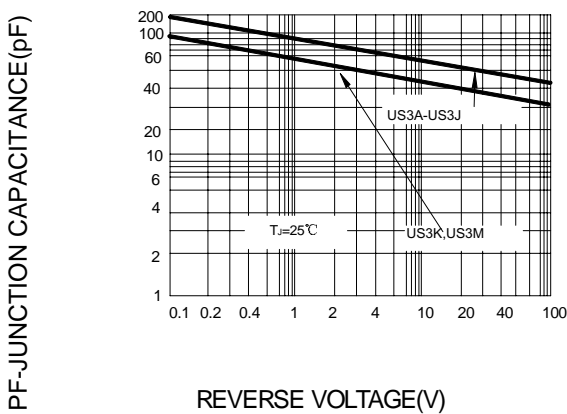


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

