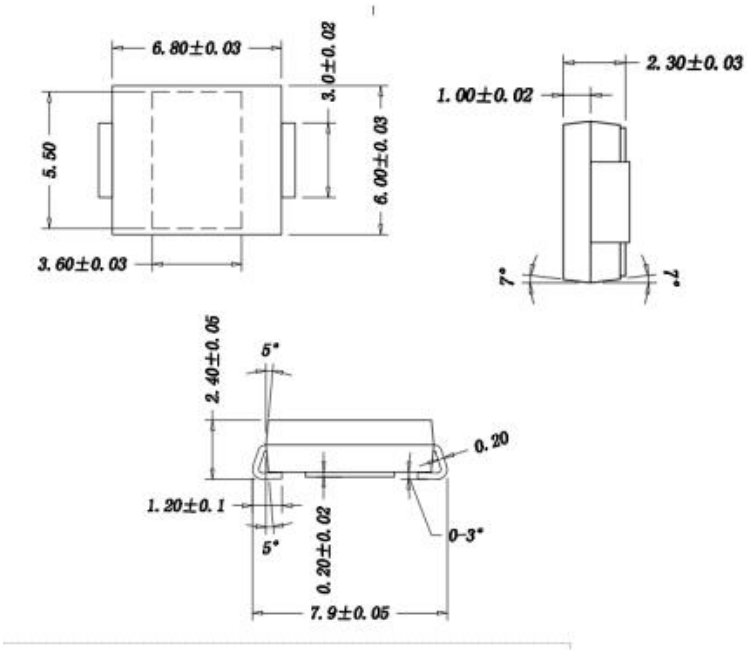
S3A THRU S3M

Surface Mount Generai Purpose Siiicon Rectifiers Datasheet

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Open Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds at terminals

DO-214AB/SMC



Dimiensions in inches and (milimeters)

Mechanical Data

Case: JEDEC 60B molded plastic body
Terminals: Solderable per MIL-STD-750,Method 2026
Polarity: Polarity symbol marking on body Mounting
Position: Any
Weight : 0.005ounce, 0.138grams

Maximum Ratings And Elect Characteristics

Ratings at 25 C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Type Number	SYMBOL	S3A	S3B	S3D	S3G	S3J	S3K	S3M	unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	140	420	560	700	V
Maximum DC blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .at TA =55°C	$I_{F(AV)}$	3							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100							A
Maximum Forward Voltage at 1.5A DC	V_F	1.1							V
Maximum DC Reverse Current @T_A =25°C	I_R	10.0							µA
At rated DC blocking voltage @T_A=100°C		100							
Typical Junction Capacitance (Note1)	Cj	35							pF
Typical Thermal Resistance (Note 2)	$R_{(JA)}$	40							°C /W
Storage Temperature	T_{STG}	-55 to +150							°C
Operation Junction Temperature	T_J	-55 to +150							°C

Note: 1. Pulse Test with PW=300µsec,2% Duty Cycle.
2. Mounted on P.C.Board with 5.0mm2(.013mm thick)copper pad areas.

FIG.1 – FORWARD DERATING CURVE

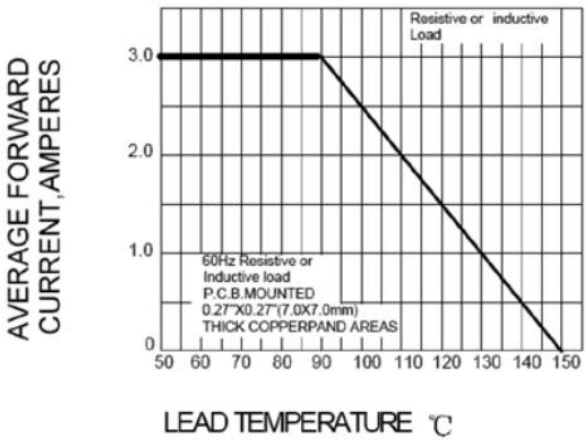


FIG.2 PEAK FORWARD SURGE CURRENT

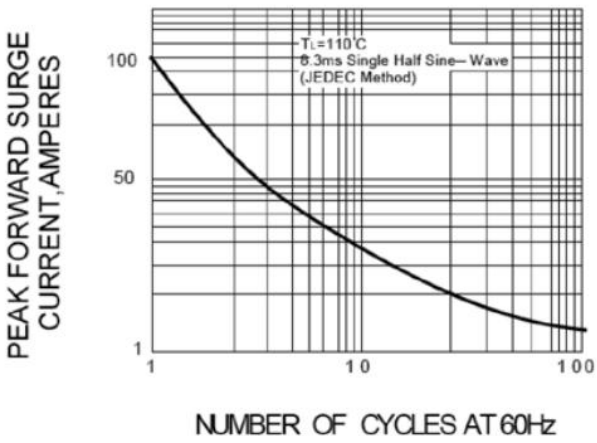


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

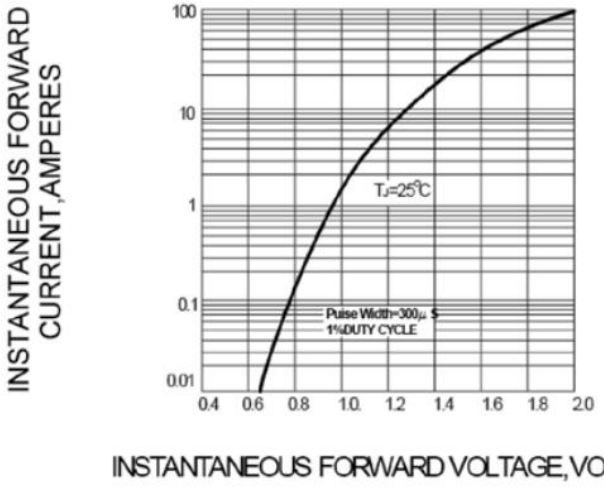


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

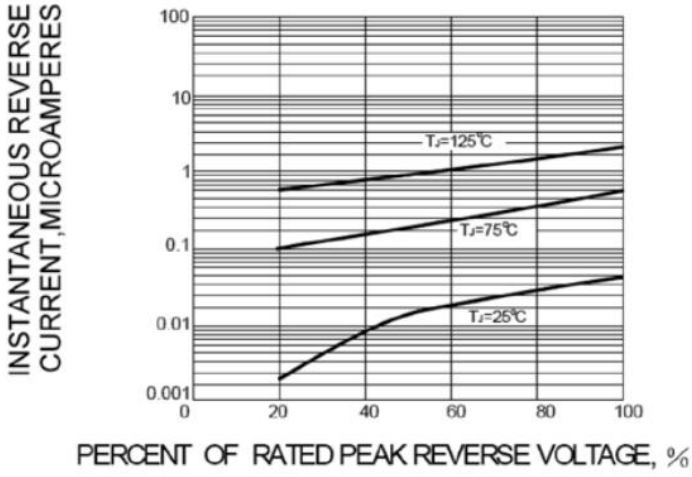


FIG.5-TYPICAL JUNCTION CAPACITANCE

