DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

S3ABF THRU S3MBF

TECHNICAL SPECIFICATIONS OF GENERAL PURPOSE SILICON RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 3.0 Amperes*

FEATURES

* Ideal for surface mounted applications
* Glass passivated junction
* Low leakage current
* Low forward voltage drop
* High surge capability

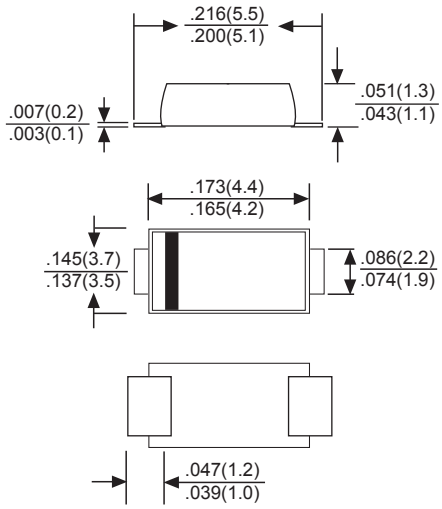
MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94-V0 rate flame retardant
* Terminals: Solder plated solderable per MIL-STD-750, Method 2026
* Polarity: As marked
* Mounting position: Any
* Weight: 0.03 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

SMBFL



Dimensions in inches and (millimeters)

		SYMBOL	S3ABF	S3BBF	S3DBF	S3GBF	S3JBF	S3KBF	S3MBF	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T_A = 65°C		I_O	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	100							Amps
Maximum Instantaneous Forward Voltage at 3.0A DC		V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TJ = 25°C	I_R	5.0							μAmps
	@TJ = 125°C		250							
Typical Junction Capacitance (Note 1)		C_J	53							pF
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	50							°C/W
Operating and Storage Temperature Range		T_J,T_{STG}	-55 to +150							°C

Note 1 :Measured at 1 MHz and applied reverse voltage of 4.0 volts.
Note 2 :Typical thermal resistsnce from junction to ambient.

RATING AND CHARACTERISTIC CURVES (S3ABF THRU S3MBF)

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

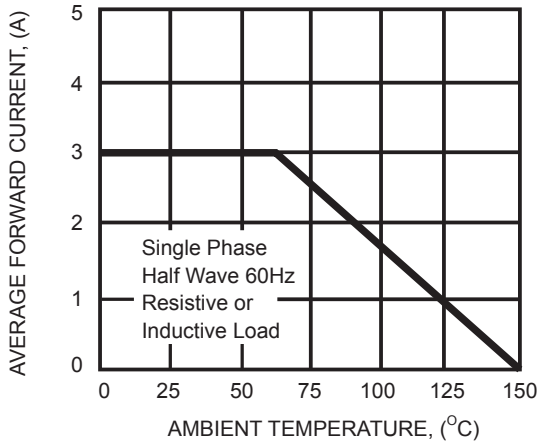


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

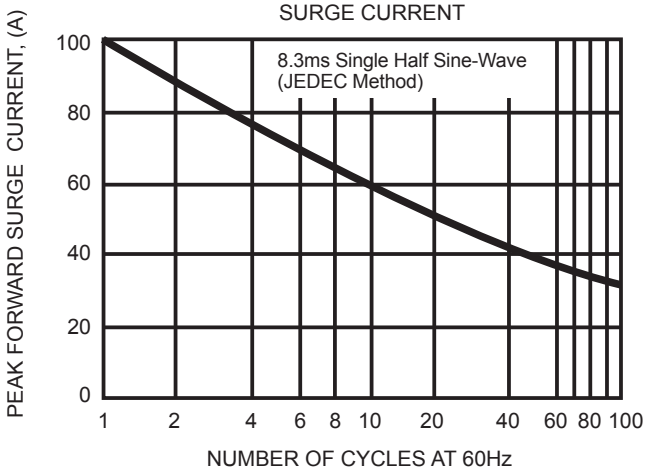


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

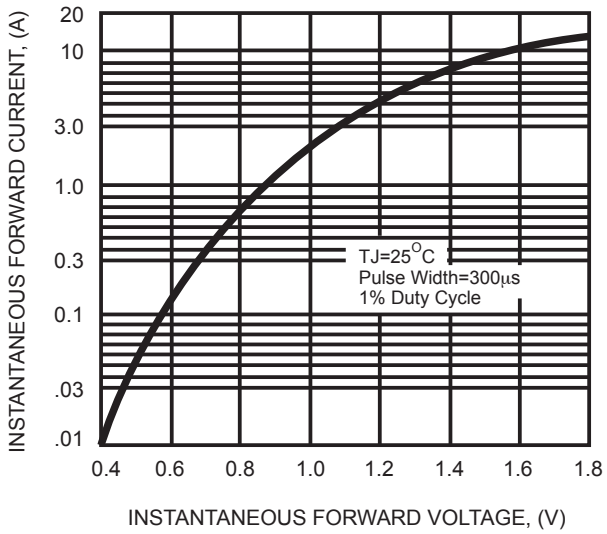


FIG. 4
TYPICAL REVERSE CHARACTERISTICS

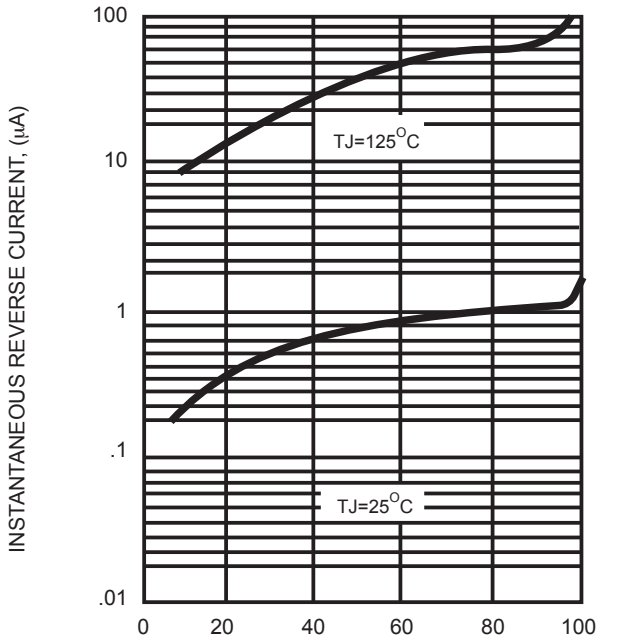
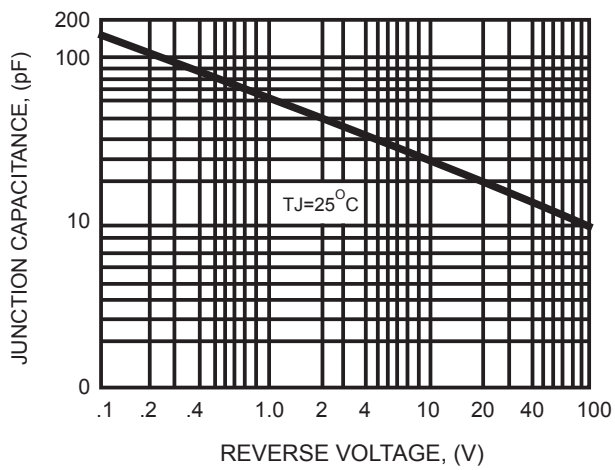


FIG. 5
TYPICAL JUNCTION CAPACITANCE



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