



# Taiwan Goodark Technology Co.,Ltd

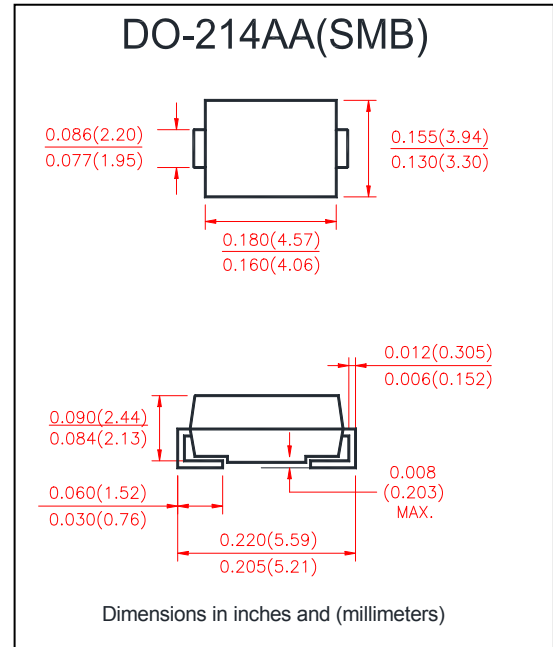
## SS52B THRU SS5200B

### FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:  
260 C/10 seconds at terminals

### MECHANICAL DATA

- Case: SMAF molded plastic body
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002ounce, 0.064 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%.

TYPE NUMBER		SYMBOLS	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS5150	SS5200	UNIT
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at T <sub>L</sub> see figure.1		I <sub>(AV)</sub>	5									Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	150									Amps
Maximum Instantaneous Forward Voltage @ 5.0A(Note1)		V <sub>F</sub>	0.55			0.70		0.85			0.95	Volts
Maximum DC Reverse Current at rated DC Blocking Voltage per element	T <sub>A</sub> = 25℃	I <sub>R</sub>	0.5						0.2		mA	
	T <sub>A</sub> = 100℃		20				10		2			
Typical junction capacitance (NOTE 1)		C <sub>J</sub>	200									pF
Typical thermal resistance (NOTE 2)		R <sub>θJA</sub>	50									℃/W
Operating Junction Temperature		T <sub>J</sub>	(-55 to +125)					(-55 to +150)				℃
Storage Temperature Range		T <sub>STG</sub>	(-55 to +150)									℃

#### Notes:

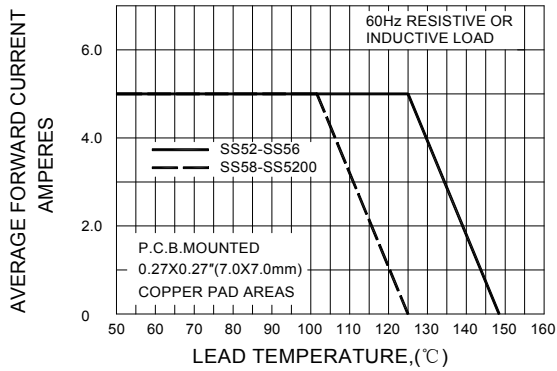
- Measured at 1MHz and applied reverse voltage of 4.0V D.C.
- P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas



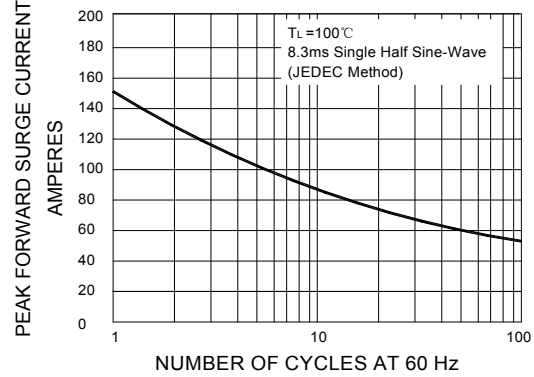
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## SS52B THRU SS5200B

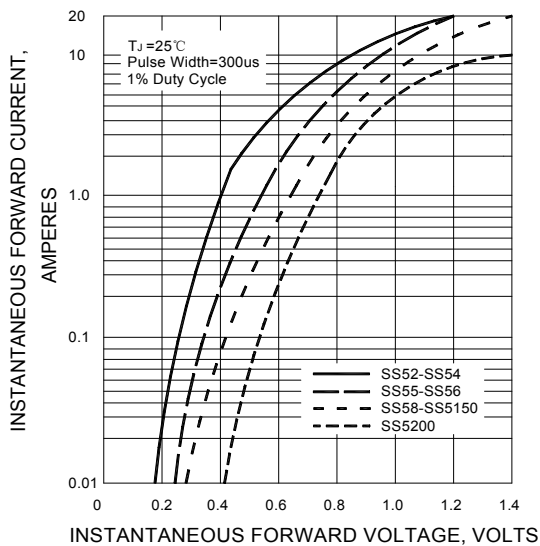
F1G.1-FORWARD CURRENT DERATING CURVE



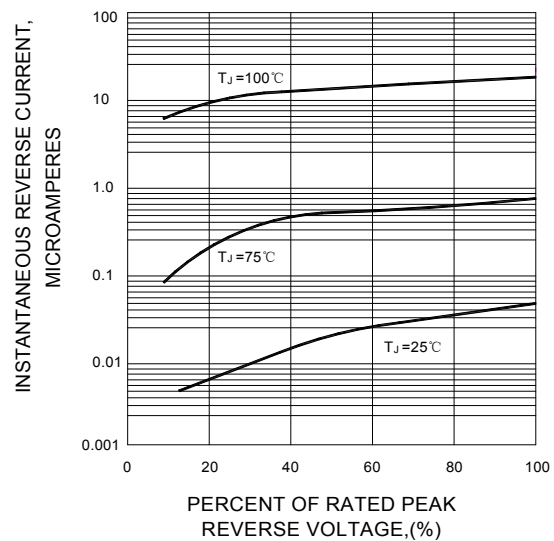
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE

