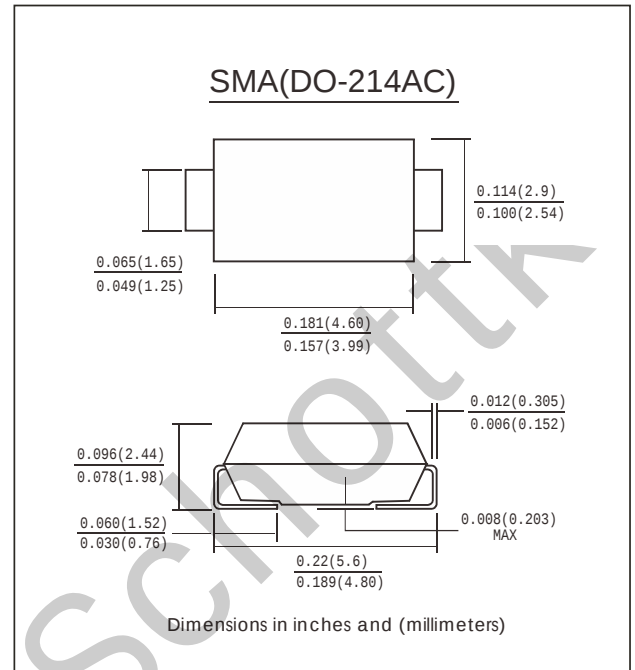


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Low profile package
- built-in strain relief ,ideal for automated placement
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- Case: JEDEC SMA(DO-214AC) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Weight: 0.003ounce,0.093 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	SS 52	SS53	SS54	SS56	SS510	SS515	SS520	Units
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	60	100	150	200	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	42	70	100	140	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length (See Fig.1)	I _(AV)	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	120.0							Amps
Maximum instantaneous forward voltage at 3.0 A(Note 1)	V _F	0.55			0.65	0.80	0.85	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T=25 °C	I _R	0.05						mA
	T _c =100 °C		10			5			
Typical junction capacitance(Note 3)	C _J				160				pF
Typical thermal resistance (Note 2)	R _{θJA}	55.0							°C/W
	R _{θJL}	17.0							
Operating junction temperature range	T _J	-65 to+125			-65 to+150				°C
Storage temperature range	T _{STG}	-65 to+150							°C

- Notes: 1. Pulse test: 300 μ s pulse width,1% duty cycle
2. P.C.B. mounted 0.55 X 0.55"(14 X 14mm)copper pad areas
3. Measured at 1MHz and reverse voltage of 4.0volts

FIG.1-FORWARD CURRENT DERATING CURVE

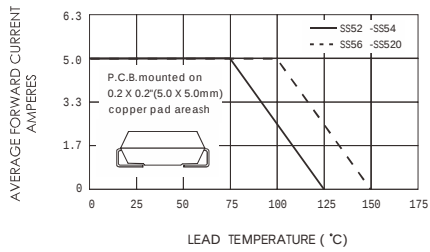


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

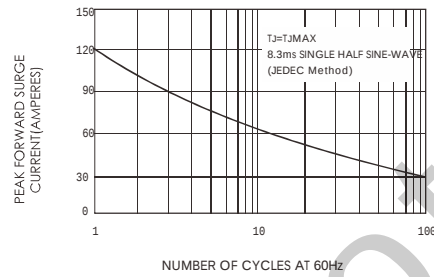


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

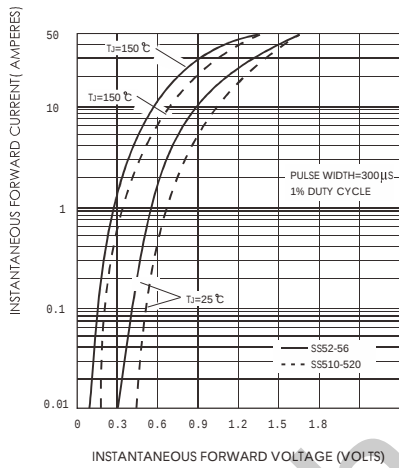


FIG.4-TYPICAL REVERSE CHARACTERISTICS

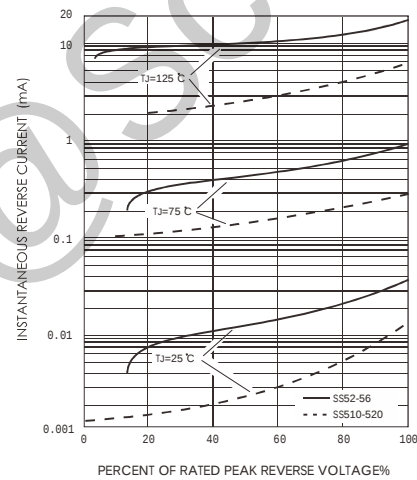


FIG.5-TYPICAL JUNCTION CAPACITANCE

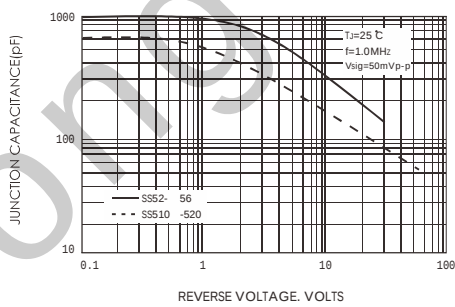
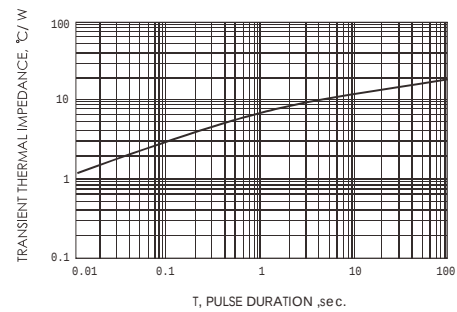
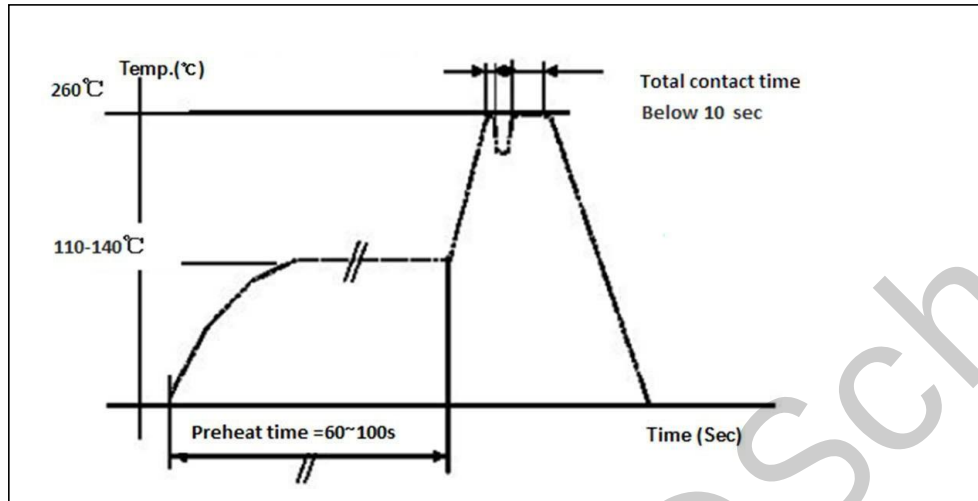


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

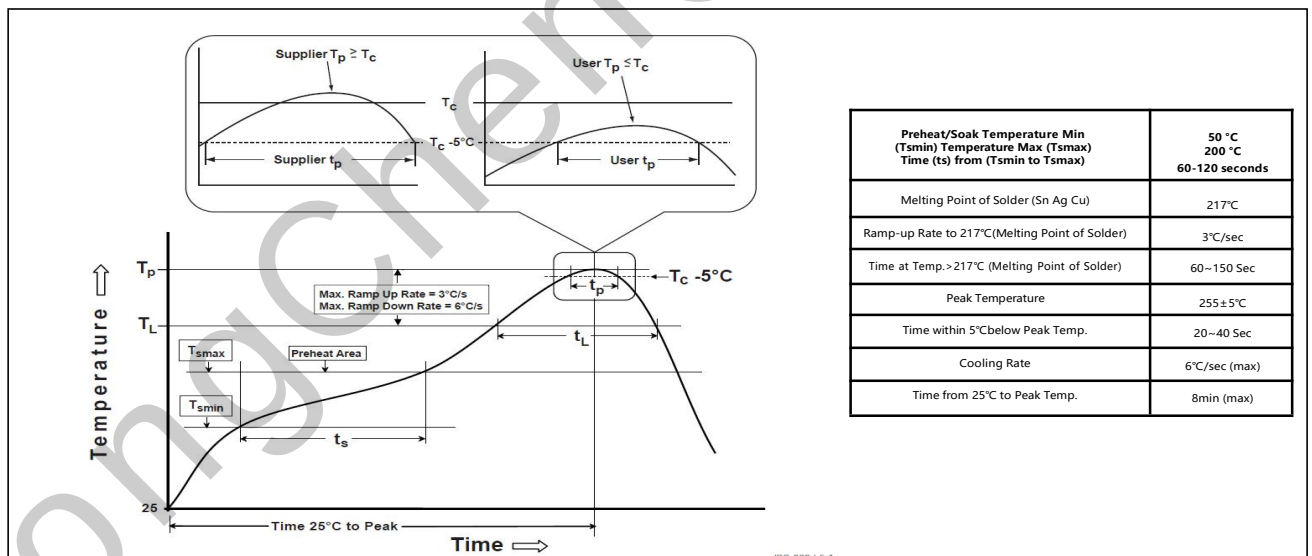


Recommended Soldering Profile for Rectifier Diodes (Pb Free)

a) Wave Soldering Profile



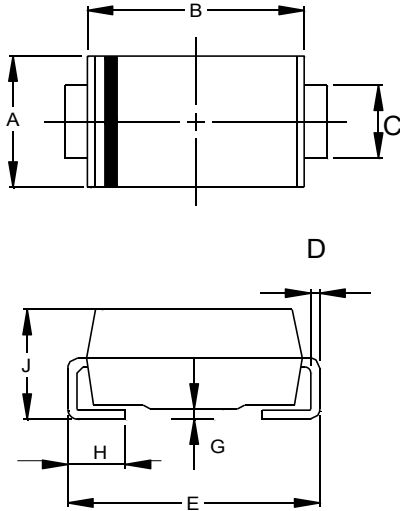
b) Reflow Soldering Profile (Pb Free Application), refer to IPC/JEDEC J-STD-020



c) Manual Soldering

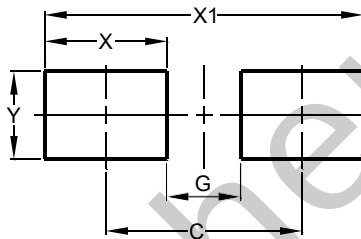
When using an electric soldering iron for manual soldering, it is recommended that the temperature does not exceed 300°C and the soldering time is less than 10 seconds.

Package Outline Dimensions



SMA		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.05	0.20
H	0.76	1.52
J	1.96	2.40
All Dimensions in mm		

Suggested Pad Layout



Dimensions	Value (in mm)
C	4.00
G	1.50
X	2.50
X1	6.50
Y	1.70

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