GAIA TECH

SS52---SS54

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 20--- 200V CURRENT: 5.0 A

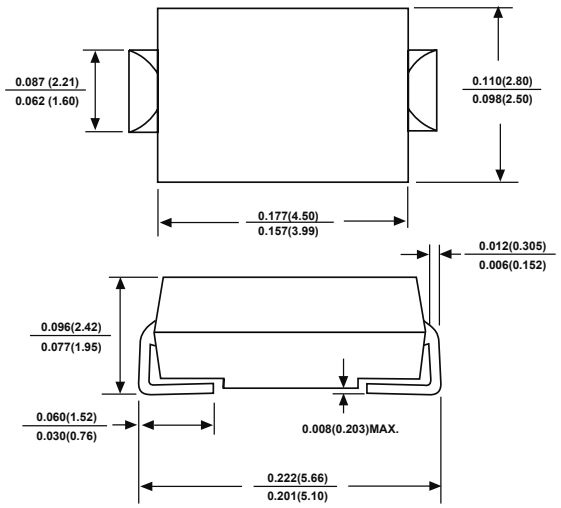
FEATURES

- ●Metal silicon junction, majority carrier conduction
- ●High surge capability
- ●High temperature soldering guaranteed: 260°C/10 seconds
- ●High current capability, low forward voltage drop
- ●Guarding for over voltage protection
- ●RoHS Compliant

MECHANICAL DATA

- ●Case: SMA molded plastic
- ●Molding compound, UL flammability classification rating 94V-0
- ●Terminals: Matte tin plated leads, solderable perJ-STD-002 and JESD22-B102
- ●Polarity: Color band denotes cathode end

SMA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.
For capacitive load,derate by 20%.

Characteristic	Symbol	SS52A	SS53A	SS54A	Units
Peak repetitive reverse voltage	V_{RRM}	20	30	40	V
RMS reverse voltage	V_{RMS}	14	21	28	V
DC blocking voltage	V_{DC}	20	30	40	V
Maximum average forward output current	$I_{F(AV)}$	5.0			A
Peak forward surge current, 8.3ms single half-sine-wave	I_{FSM}	150			A
Typical thermal resistance (Note 1)	$R_{\Theta JA}$	70			°C /W
	$R_{\Theta JC}$	25			
	$R_{\Theta JL}$	30			
Operating junction temperature range	T_J	- 55 ---- + 125			°C
Storage temperature range	T_{STG}	- 55 ---- + 150			°C

Parameter	Symbol	Test conditions		Typ.	Max.	Units
Maximum instantaneous forward voltage(Note 1)	V_F	I_F=5.0A	@T_A=25°C	--	0.55	V
Maximum Reverse current (Note 2)	I_R	Rated V_R,	@T_A=25°C	--	500	μ A
			@T_A=100°C	--	20	m A

Note:

1. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

2.Pulse test: 300us pulse width, 1 % duty cycle 2.Pulse test: Pulse width 40ms

RATINGS AND CHARACTERISTIC CURVES

Fig.1-Forward Current Derating Curve

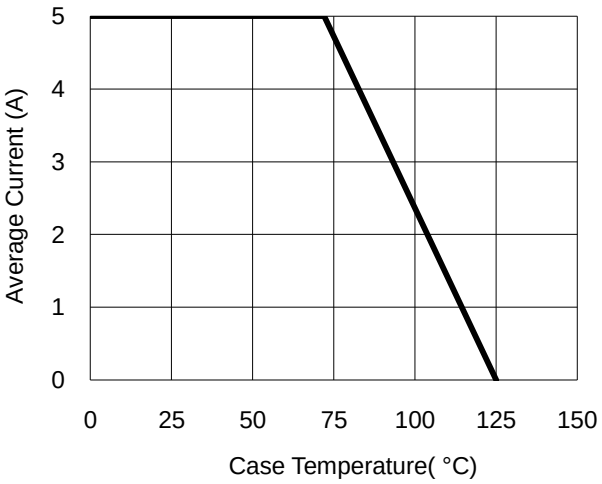


Fig.2- Surge Current Derating Curve

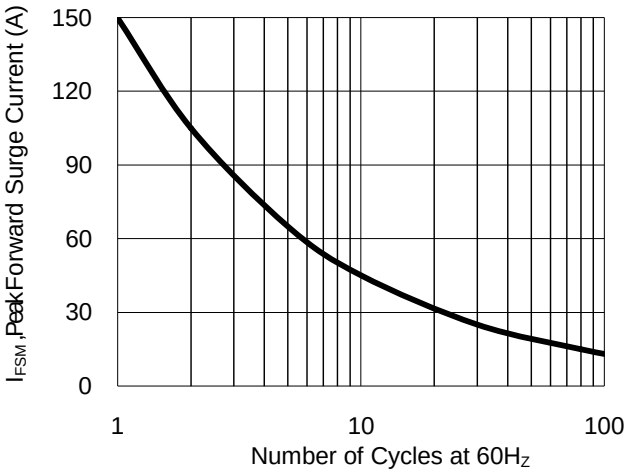


Fig.3- Typical Forward Voltage Characteristic

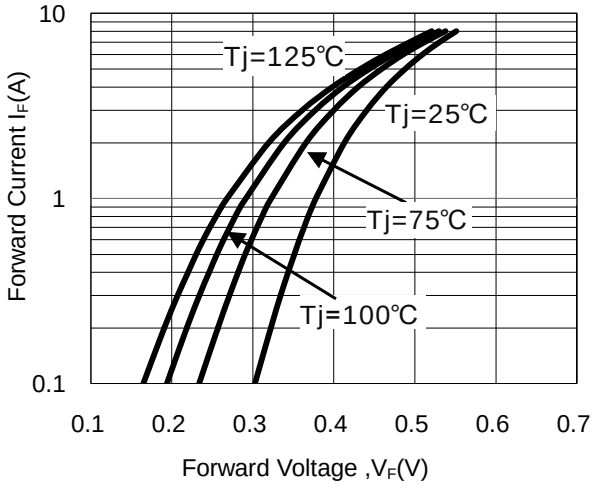


Fig.4- Typical Reverse Characteristic