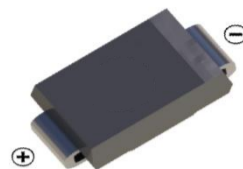
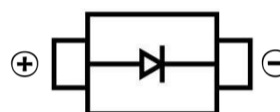


FEATURES

- Small Surface Mount device
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



SMA



MECHANICAL DATA

- Case: SMA(DO-214AC)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.065 grams (approximate)

MAXIMUM RATINGS AND CHARACTERISTICS($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	SS52A	SS53A	SS54A	SS55A	SS56A	SS58A	SS510A	SS515A	SS520A	Unit
Repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V
RMS Reverse Voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	V
DC Reverse Voltage	V _R	20	30	40	50	60	80	100	150	200	V
Mean rectifying current	I _F	5.0									A
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I _{FSM}	100									A
Thermal Resistance From Junction To Ambient(1)	R _{θJA}	60									°C/W
	R _{θJL}	22									
Junction Temperature	T _J	-55 ~+125									°C
Storage Temperature	T _{STG}	-55 ~+125			-55 ~+150						°C

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	SS52A	SS53A	SS54A	SS55A	SS56A	SS58A	SS510A	SS515A	SS520A	Unit	Conditions
Forward voltage	V _F	0.60			0.70		0.85		0.90		V	I _F =5A
Reverse current	I _R	0.5					0.1				mA	V=V _R , Ta=25°C
		10					5				mA	V=V _R , Ta=100°C
Junction capacitance	C _J	265			210		150		100		pF	V _R =4V, f=1MHZ

NOTE:

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical Characteristics

FIG.1: I_O - T_L Curve

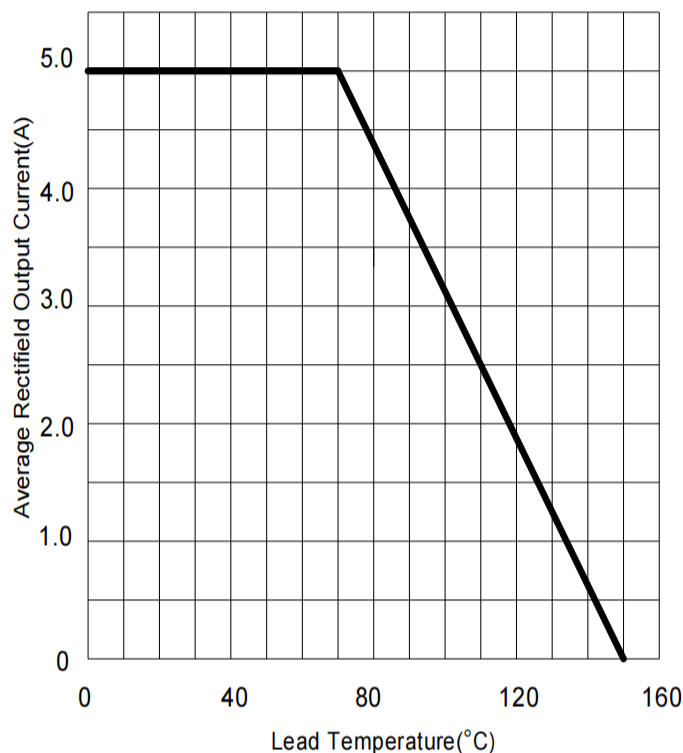


FIG.2: Surge Forward Current Capability

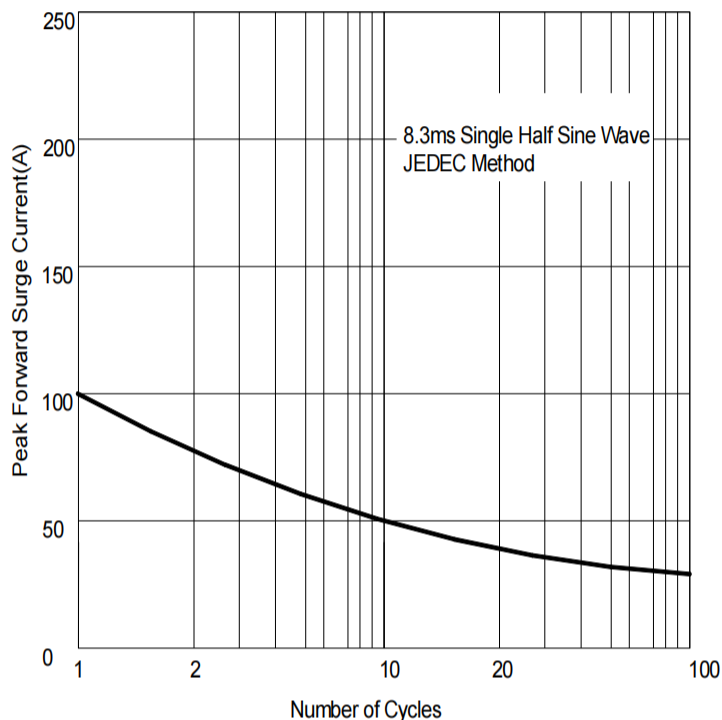


FIG.3: Typical Forward Characteristics

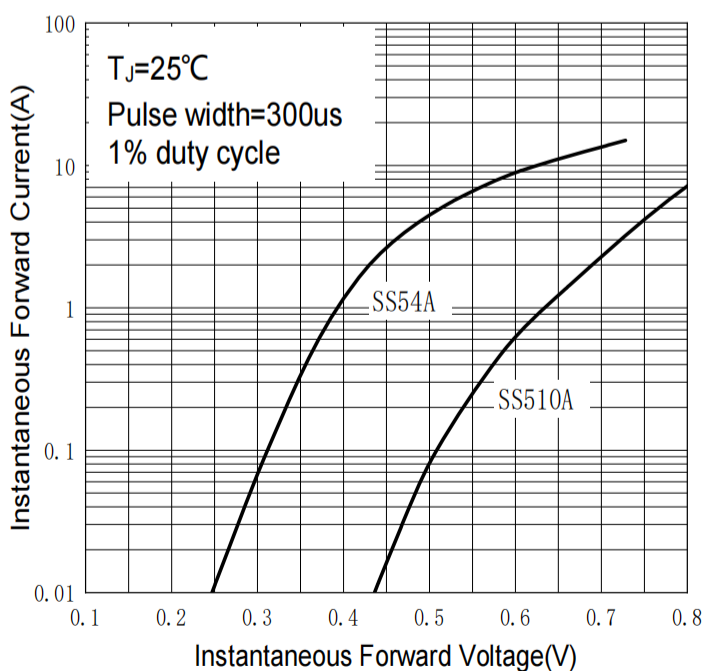
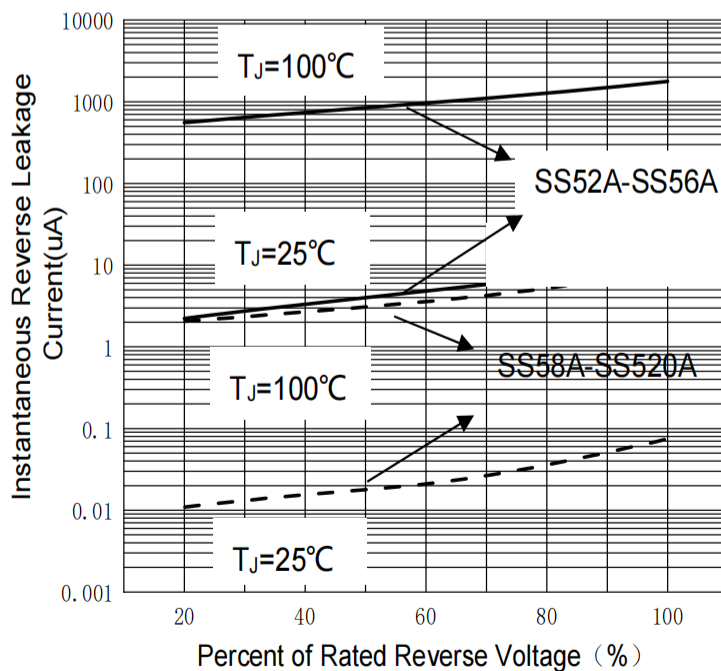
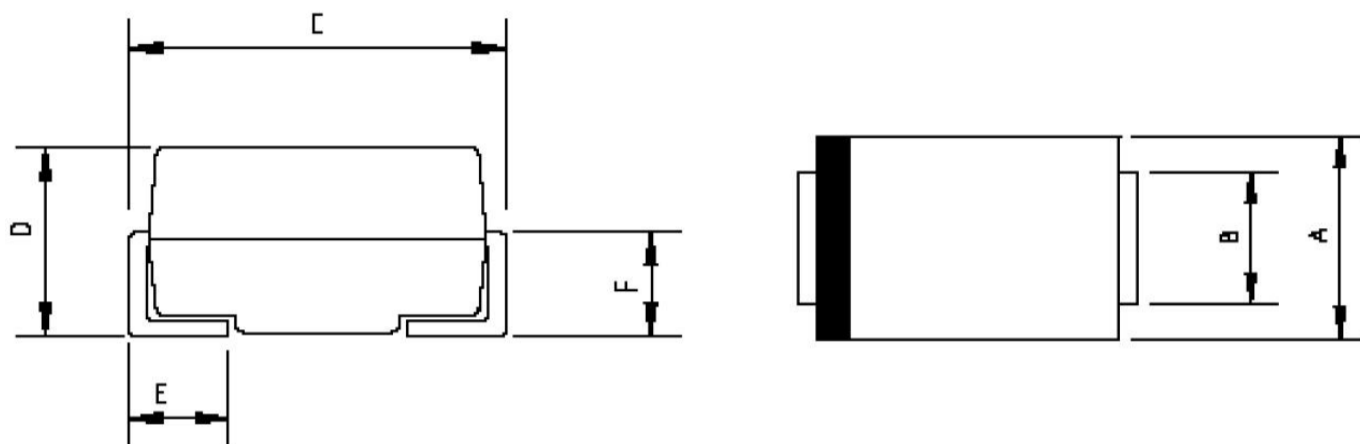


FIG.4: Typical Reverse Characteristics



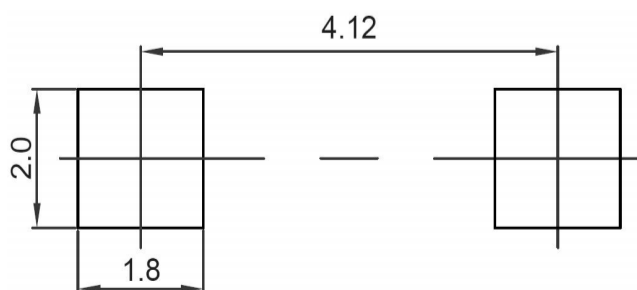
SMA Package Outline Dimensions

SMA(DO-214AC)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.80	0.086	0.110
B	1.30	1.70	0.051	0.067
C	4.70	5.30	0.185	0.209
D	1.70	2.55	0.067	0.100
E	0.90	1.50	0.035	0.059
F	0.90	1.50	0.035	0.059

SMA Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only