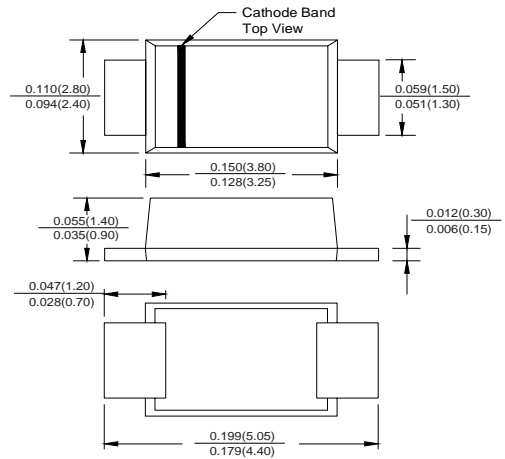


### FEATURES

- 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



### SMAF



### MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Meth
- Approx. Weight: 27mg 0.00086oz

### 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 52LF	SS 53LF	SS 54LF	SS 545LF	SS 56LF	SS 58LF	SS 510LF	SS 515LF	SS 520LF	Units	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	45	60	80	100	150	200	Volts	
Maximum RMS voltage	$V_{RMS}$	14	21	28	32	42	57	71	105	140	Volts	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	45	60	80	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 at rated $T_J$ )	$I_{FSM}$	150.0									Amps	
Maximum instantaneous forward voltage at 5.0 A(Note 1)	$V_F$	0.45			0.50	0.68		0.80	0.85		Volts	
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$I_R$	$T_A = 25^\circ C$									mA	
		$T_A = 100^\circ C$										
Typical junction capacitance(Note 3)	$C_J$	500			400						pF	
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	55.0					17.0					°C/W
Operating junction temperature range	$T_J$	-65 to +150									°C	
Storage temperature range	$T_{STG}$	-65 to +150									°C	

- Notes: 1. Pulse test: 300 μs pulse width,1% duty cycle  
 2. P.C.B. mounted 0.55X0.55"(14X14mm) copper pad areas  
 3. Measured at 1MHz and reverse voltage of 4.0 volts



FIG.1-FORWARD CURRENT DERATING CURVE

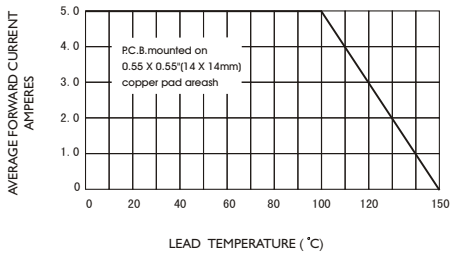


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

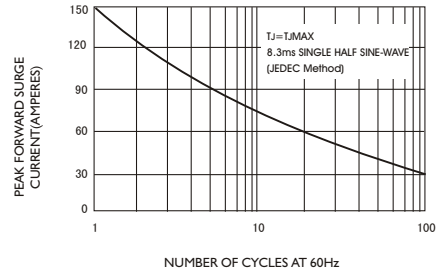


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

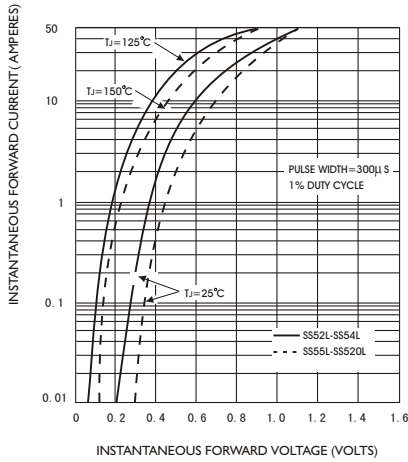


FIG.4-TYPICAL REVERSE CHARACTERISTICS

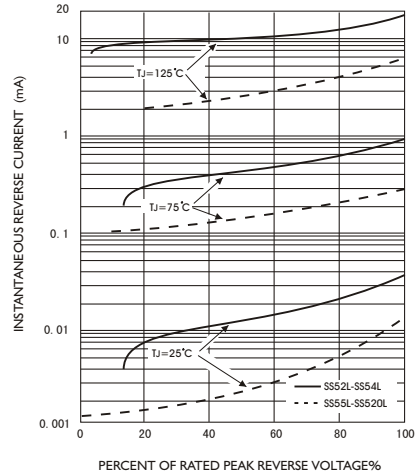


FIG.5-TYPICAL JUNCTION CAPACITANCE

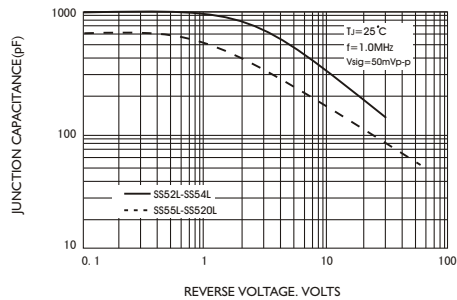


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

