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PLED

B340LA(MS)

Product specification


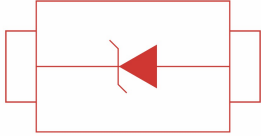

Features

- 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:
250°C/10 seconds at terminals
- Compliant to RoHS Directive 2011/65/EU

Mechanical Data

- Case : SMC Molded plastic
- Epoxy : UL94V-0 rate flame retardant
- Lead : Lead Formed for Surface Mount
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.21 gram

Reference News

Outline	Pin Configuration	Marking
 SMA		

Maximum ratings and Electrical Characteristics(AT T_A=25°C unless otherwise noted)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWN} V _R	40	V
Average Rectified Output Current (Note 1) T _r =+90°C	I _o	3.0	A
Non-Repetitive Peak Forward Surge Current, Single Sine-Wave Superimposed on Rated Load, 60Hz	I _{FSM}	70	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics(@T_A=+25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Conditions
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	40	-	-	V	I _R =2.0mA
Forward Voltage Drop	V _F	-	0.310 -	0.350 0.450	V	I _F =1.0A I _F =3.0A
Leakage Current (Note 6)	I _R	-	-	150	μA	V _R =15V V _R =20V V _R =40V
			-	1.0 2.0	mA	
Total Capacitance	C _T	-	180	-	pF	F = 1MHz, V _R =4.0VDC
Thermal Resistance, Junction to Terminal	R _{θJT}	-	35	-	°C/W	-

Notes: 1. Device mounted on FR-4 substrate, 0.4**0.5", 2oz, single-sided, PC boards with 0.2**0.25" copper pad.
2. Short duration pulse test used to minimize self-heating effect.

Rating and characteristic curves

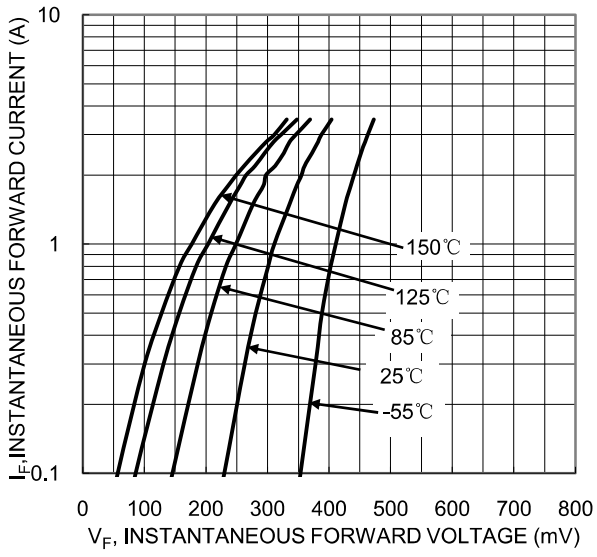


Figure 1. Typical Forward Characteristics

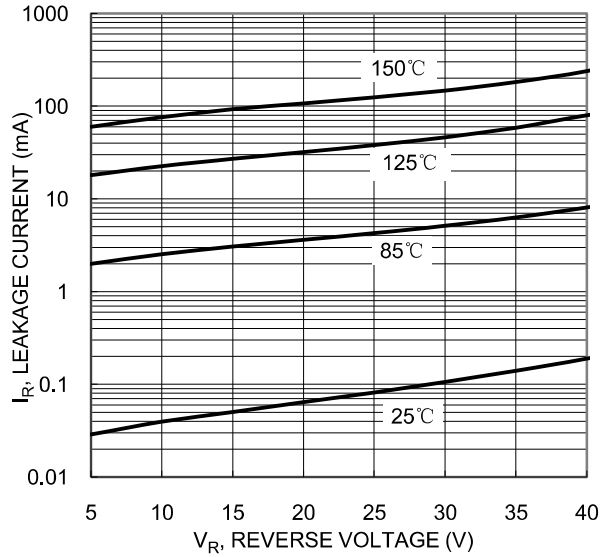


Fig.2 Typical Reverse Characteristics

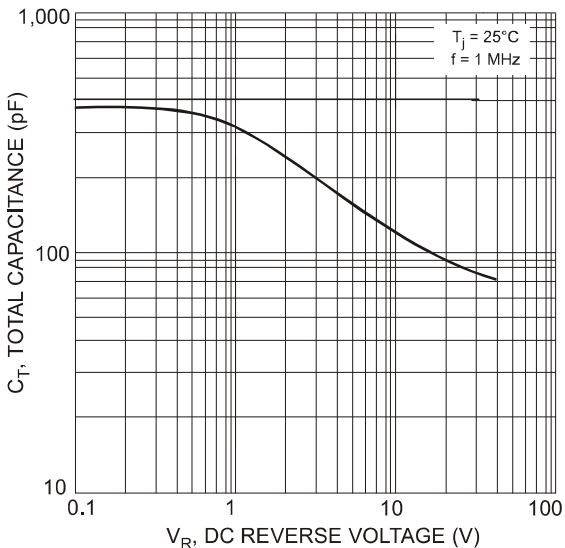


Fig. 3 Total Capacitance vs. Reverse Voltage

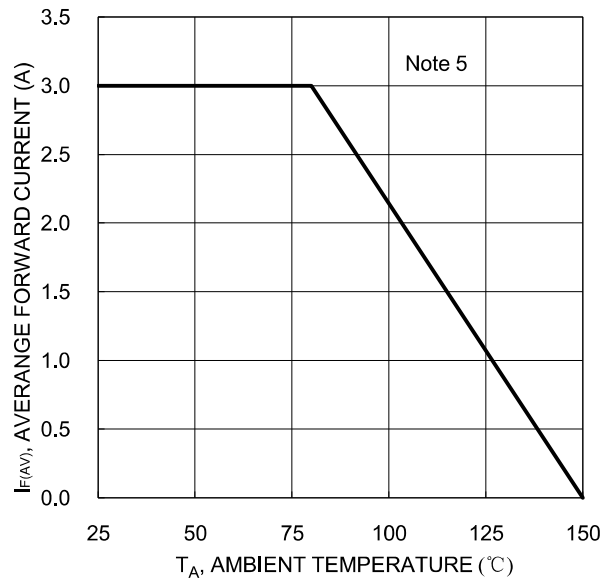


Figure 4. DC Forward Current Derating

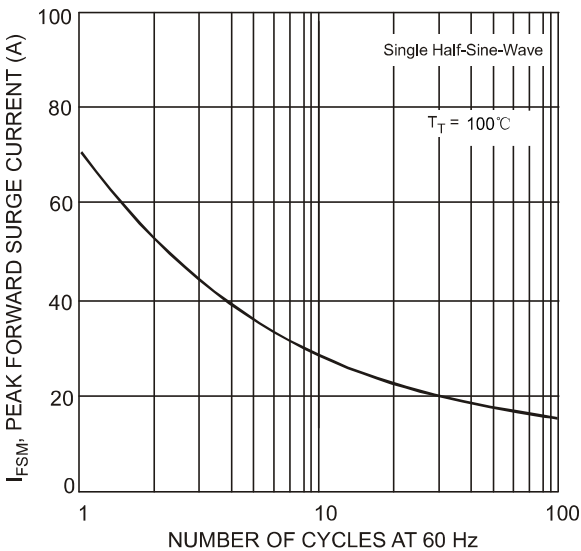
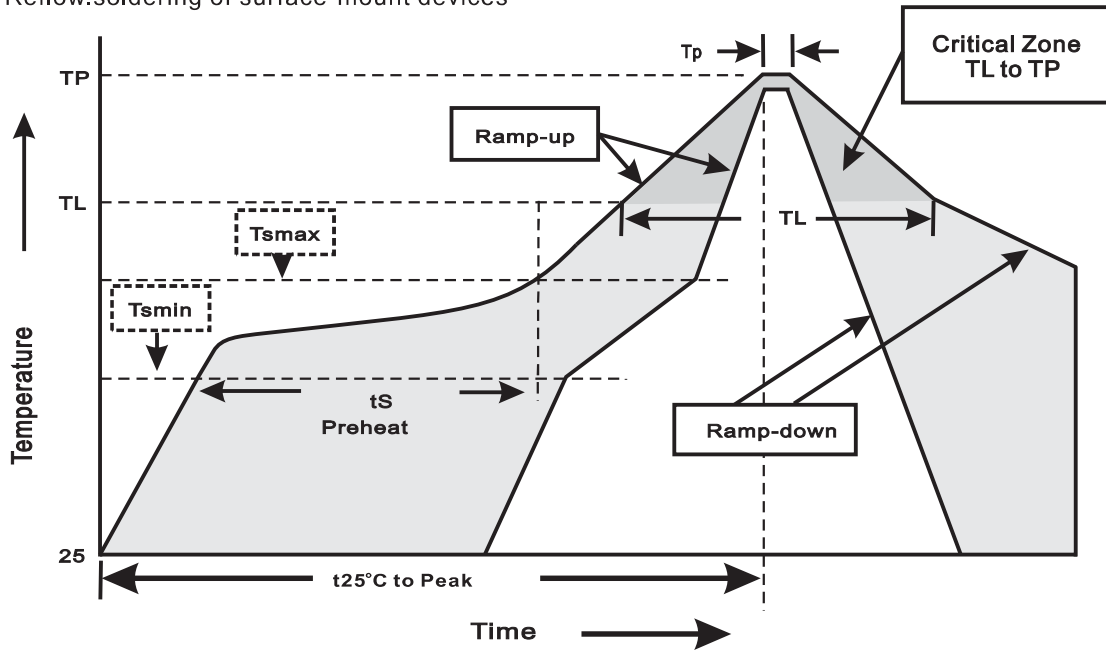


Fig. 5 Max Non-Repetitive Peak Forward Surge Current

Suggested thermal profiles for soldering processes

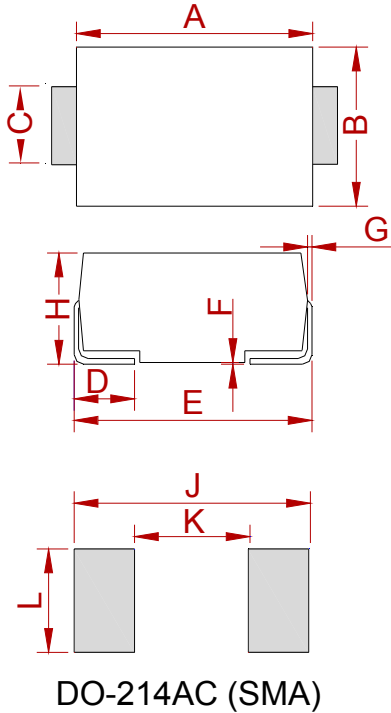
- 1.Storage environment: Temperature=5°C~40°C Humidity=55%±25%
- 2 Reflow.soldering of surface-mount devices



3.Reflow soldering

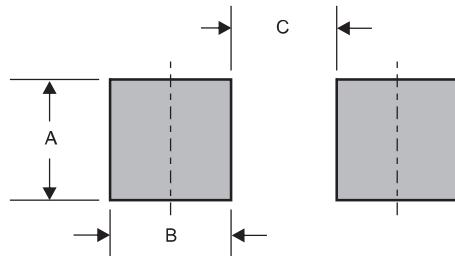
Profile Feature	Soldering Condition
Average ramp-up rate(T _L to T _P)	<3°C/sec
Preheat -Temperature Min(T _{smin}) -Temperature Max(T _{smax}) -Time(min to max)(t _s)	150°C 200°C 60~120sec
T _{smax} to T _L -Ramp-upRate	<3°C/sec
Time maintained above: -Temperature(T _L) -Time(t _L)	217°C 60~260sec
Peak Temperature(T _P)	255°C-0/+5°C
Time within 5°C of actual Peak Temperature(t _P)	10~30sec
Ramp-down Rate	<6°C/sec
Time 25°C to Peak Temperature	<6minutes

PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.65	0.167	0.183
B	2.50	2.90	0.098	0.114
C	1.35	1.65	0.053	0.065
D	0.76	1.52	0.030	0.060
E	4.93	5.28	0.194	0.208
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	1.98	2.41	0.078	0.095
J	6.50		0.256	
K		2.30		0.090
L	1.70		0.067	

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMA	0.110 (2.80)	0.063 (1.60)	0.087 (2.20)

REEL SPECIFICATION

P/N	PKG	QTY
B340LA(MS)	SMA	2000

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