沛倫股份有限公司
Compact Technology Corp.

BAV99

Small Signal Switching Chip Diode
Dual Series

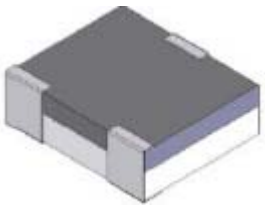
REVERSE VOLTAGE - **100** Volts
FORWARD CURRENT - **0.2** Ampere

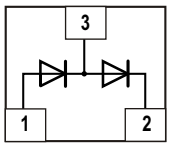
FEATURES

- Silicon Epitaxial Planar Chip Diode.
- Fast Switching dual chip diode with anode to cathode.
- Green product

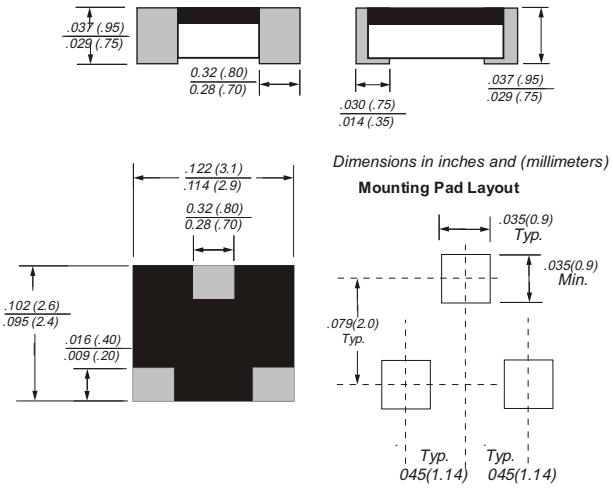
MECHANICAL DATA

- Case : SIT23CD Plastic case
- Weight : approx 21 grams





SOT-23CD



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

PARAMETER	SYMBOL	BAV99	UNIT
Non repetitive peak reverse voltage	VRM	100	V
Repetitive peak reverse voltage	VR=VRRM	70	V
Forward continuous current	IF	200	mA
Average forward current	IFAV	150	mA
Non repetitive peak forward current tp=1uS tp=1mS tp=1S	IFSM	2.0 1.0 0.5	A
Forward voltage IF=1mA IF=10mA IF=50mA IF=150m	VF	715 855 1000 1250	mV
Leakage current @70V@25℃ @70V@125℃ @25V@125℃	IR	2.5 50 30	uA
Power dissipation	Ptot	300	mW
Reverse recovery time (IF=10mA to 1R=1mA, VR=6V, RL=100Ω	Trr	4	nS
Diode capacitance (VF=VR=0, F=1MHZ)	Ctot	4	pF
Thermal resistance junction to ambient air	RθJA	430	K/W
Operating Temperature Range	TJ	-55 to +150	℃
Storage Temperature Range	TSTG	-55 to +150	℃

Typical Characteristics

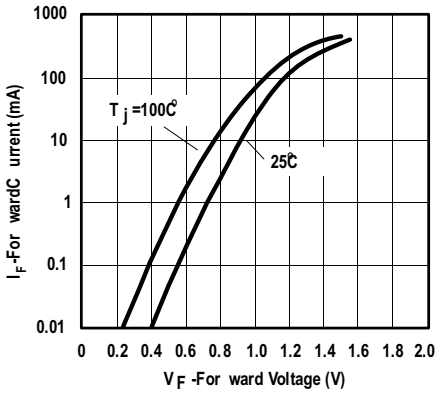


Figure1. Forward Current vs. Forward Voltage

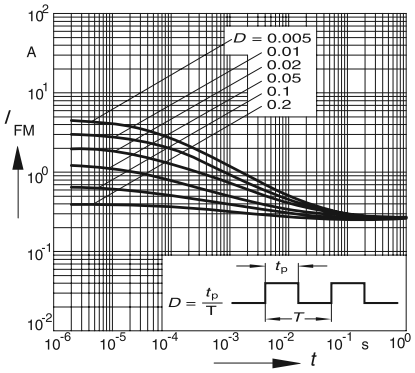
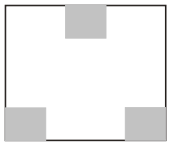


Figure2. Peak forward current $I_{FM} = f(t_p)$

Device outlook

Kunshan plant (front side)

Kunshan plant (back side)



Suggested thermal profiles for soldering processes

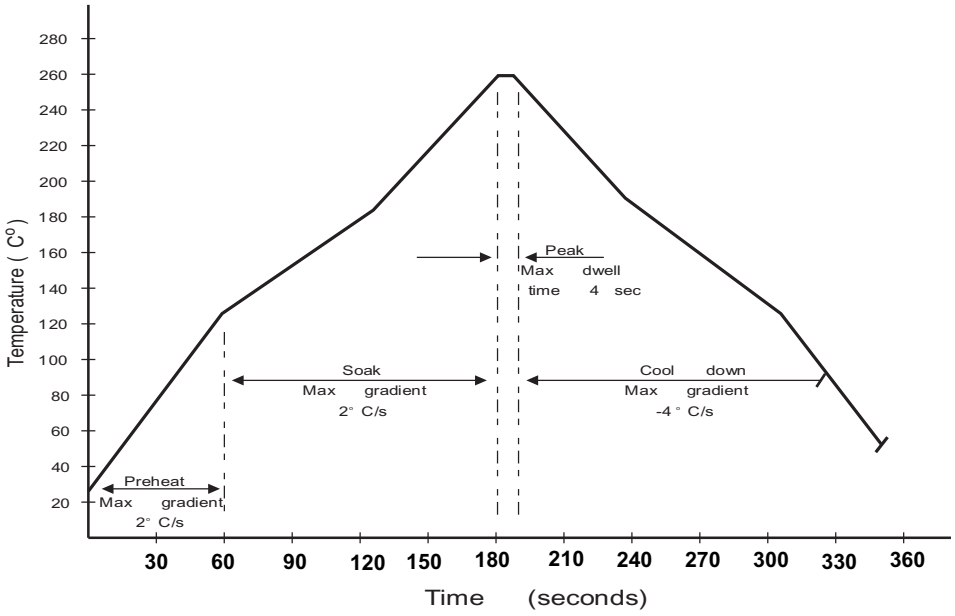


Fig.1 Typical Wave Soldering Thermal Profile

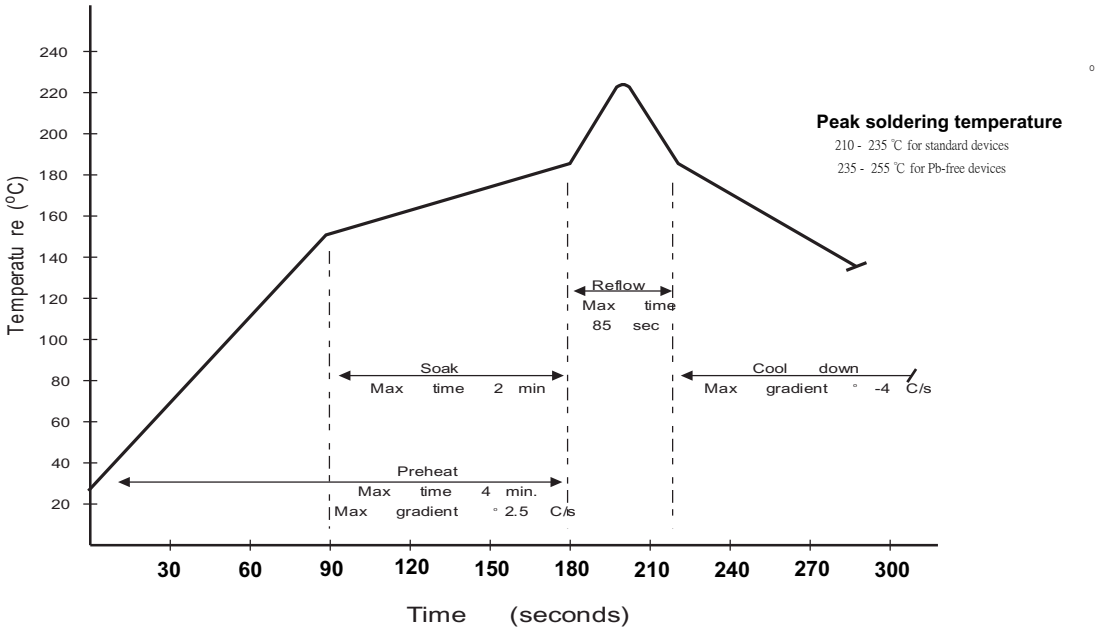


Fig2. Typical IR Reflow Soldering Thermal Profile