

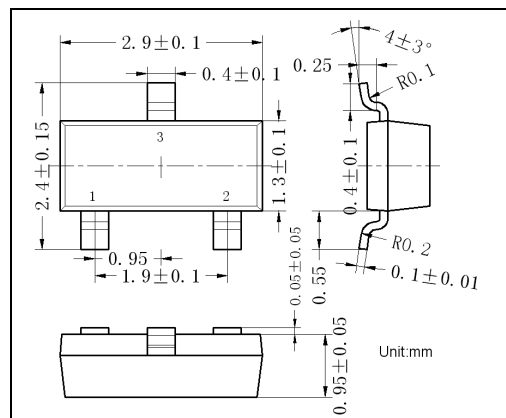
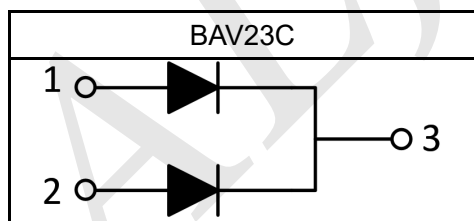
SOT-23 Plastic-Encapsulate Diodes

BAV23C

Switching Diode

Features

- Fast Switching Speed
- High Conductance
- For General Purpose Switching Applications



Marking: KT6

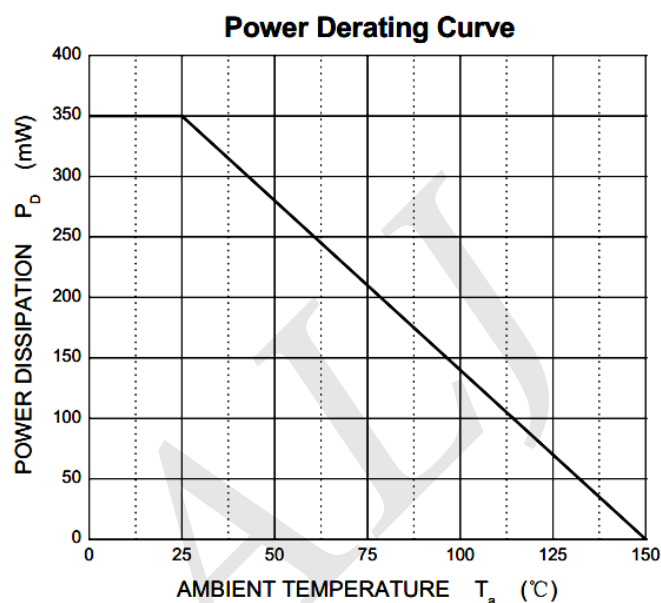
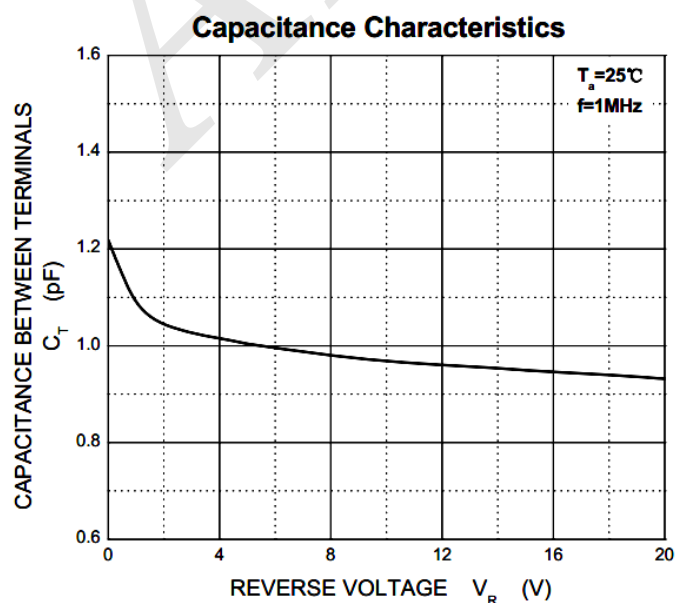
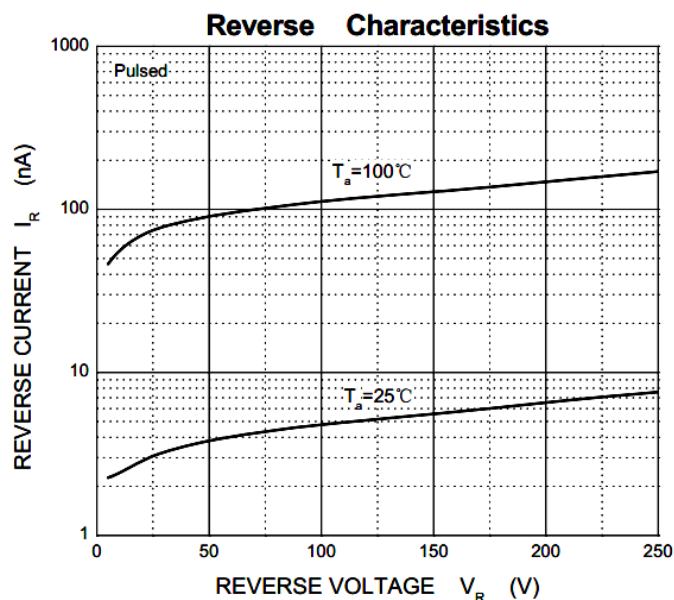
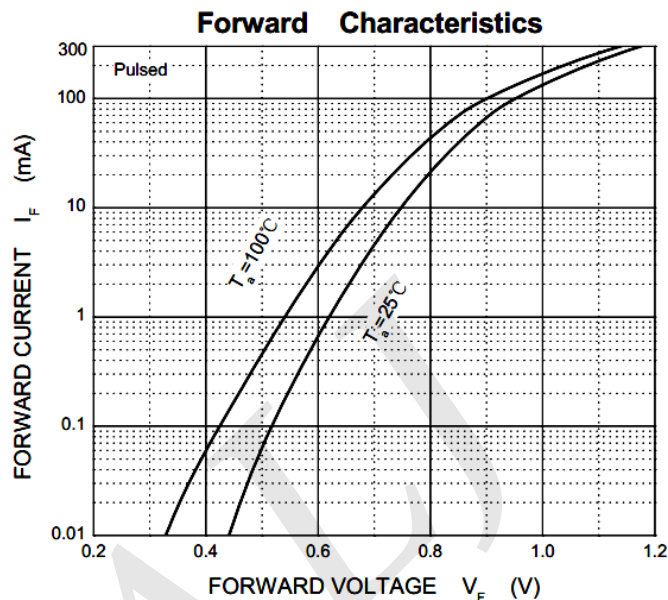
Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	250	V
V_{RWM}	Working peak reverse voltage	250	V
$V_{R(RMS)}$	RMS reverse voltage	175	V
I_O	Average Rectified Output Current	225	mA
I_{FRM}	Repetitive Peak Forward Surge Current	625	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	1.7	A
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	357	$^{\circ}\text{C/W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

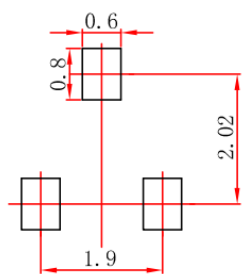
Electrical Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse voltage	$I_R = 100\mu\text{A}$	250			V
I_R	Reverse current	$V_R = 250\text{V}$			0.1	μA
V_F	Forward voltage	$I_F = 100\text{mA}$			1.0	V
		$I_F = 200\text{mA}$			1.25	V
C_{tot}	Total capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$			5	pF
t_{rr}	Reverse recovery time	$I_F = I_R = 30\text{mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100\Omega$			50	ns

Typical Characteristics



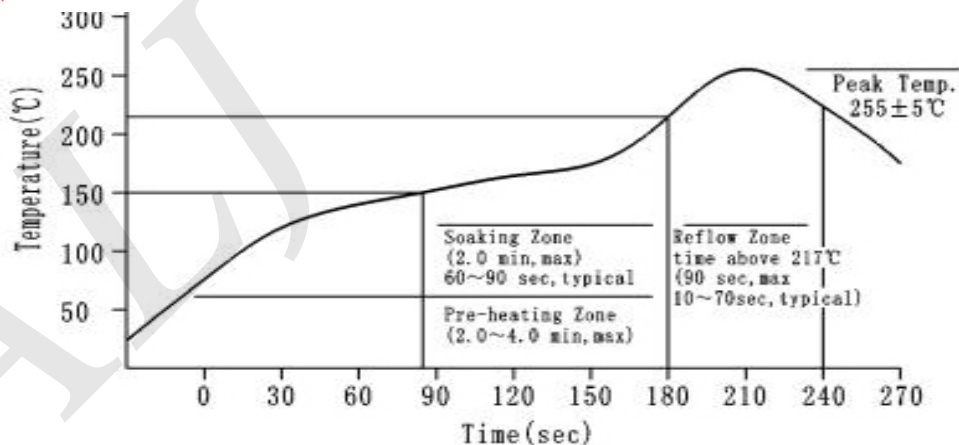
SOT-23 Suggested Pad Layout



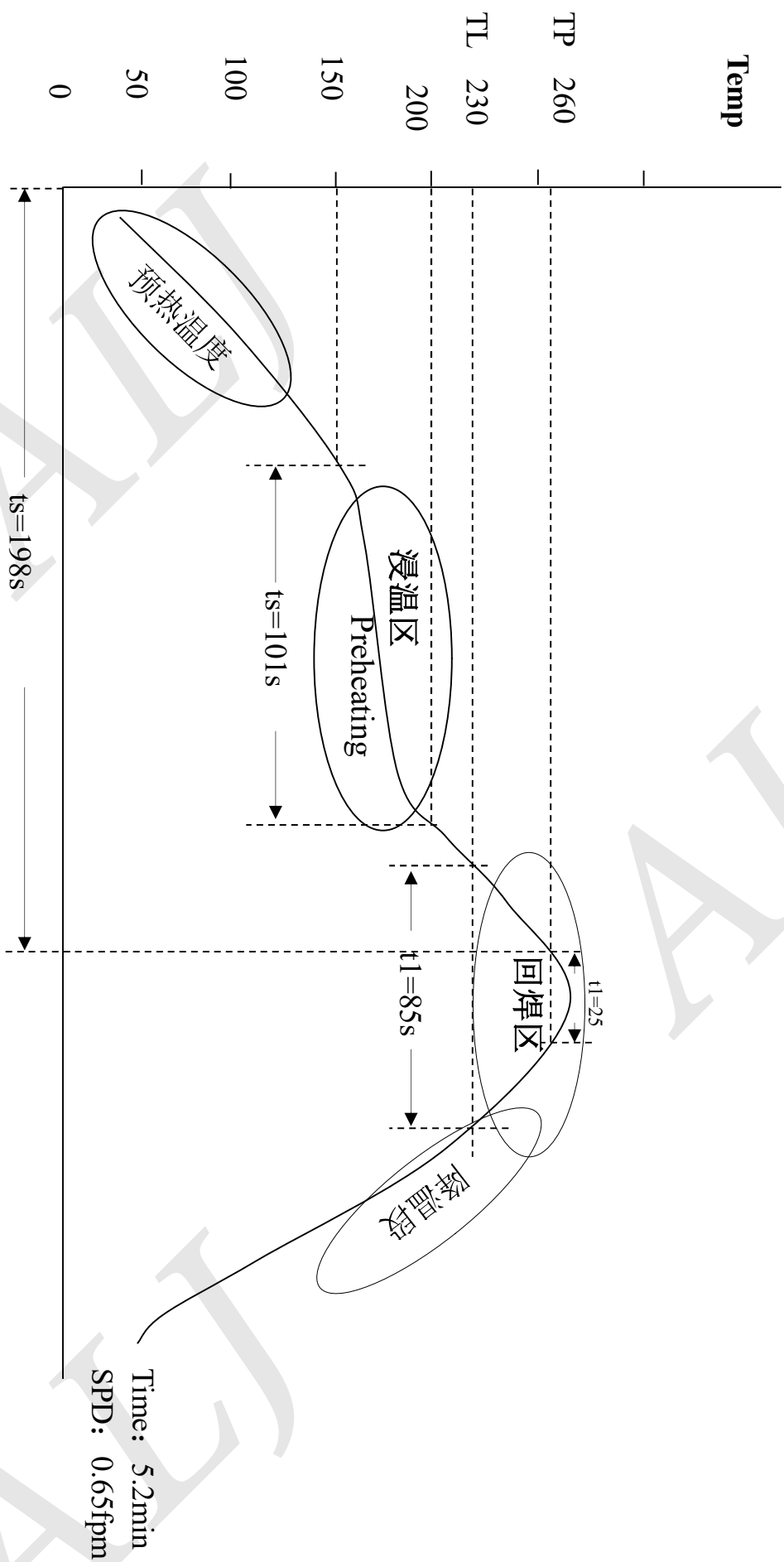
- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.

Reflux welding temperature: 260°C

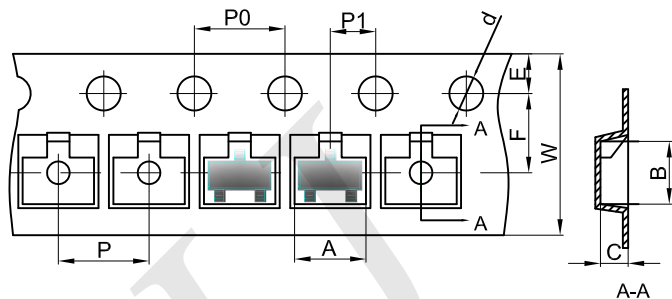
Wave soldering temperature: 250°C



IR—Reflow Profile



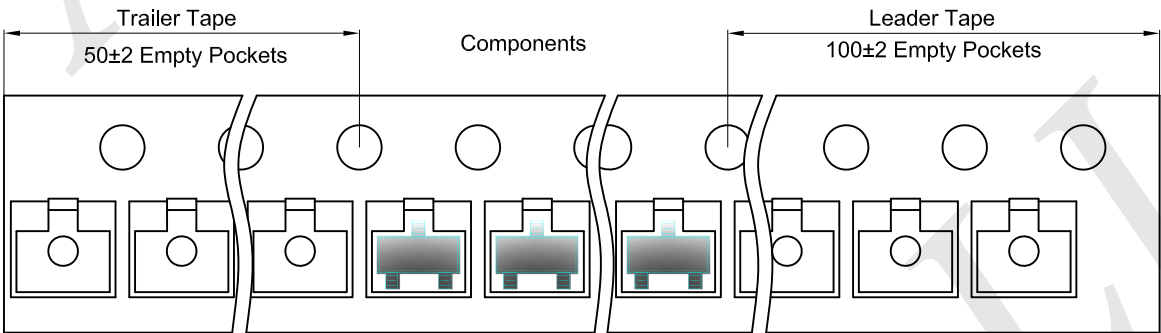
SOT-23 Embossed Carrier Tape



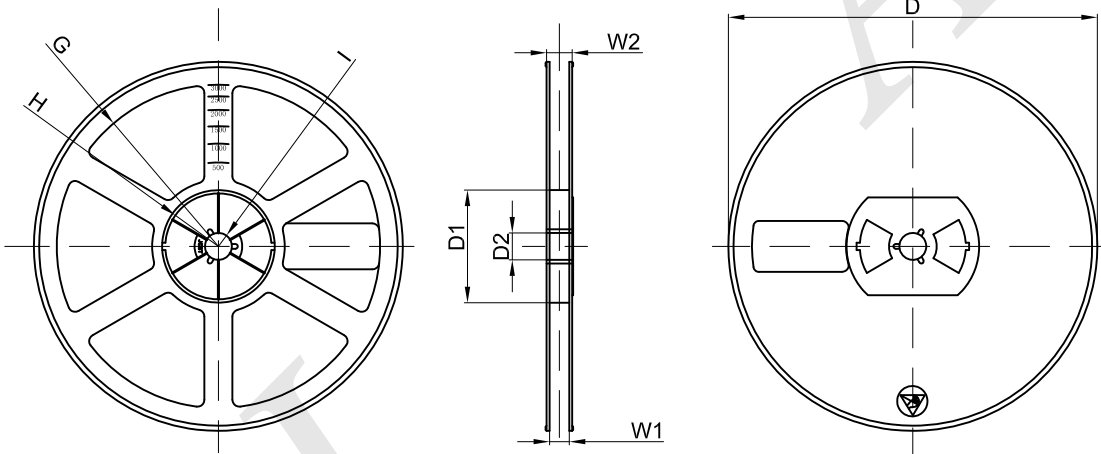
Packaging Description:
SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer



SOT-23 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	