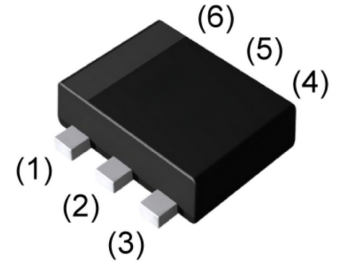




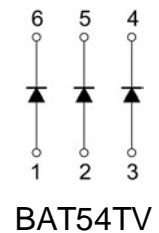
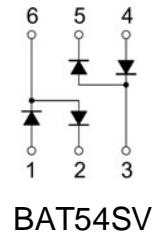
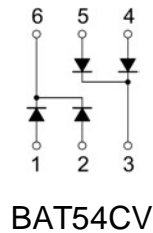
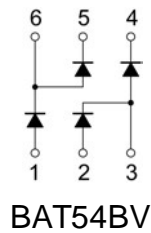
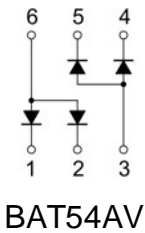
SCHOTTKY BARRIER DIODE ARRAYS



SOT-563

FEATURES

- Low Forward Voltage Drop
- Fast Switching
- Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Available in Lead Free Version



Marking: BAT54AV : KL6
BAT54BV : KLB
BAT54CV : KL7
BAT54SV : KL8
BAT54TV : KLA



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

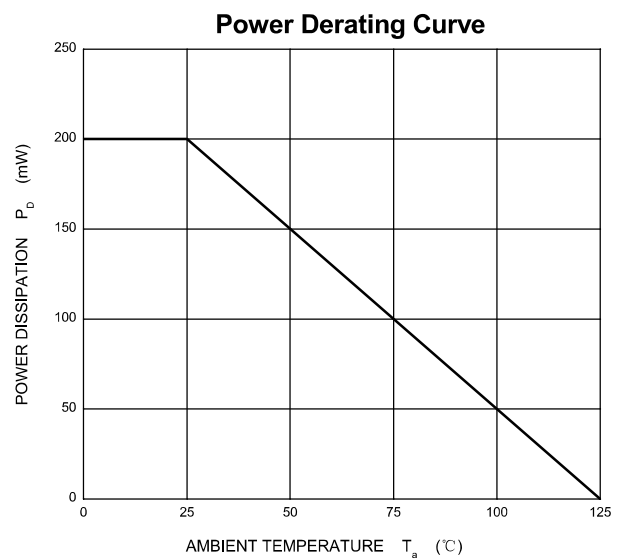
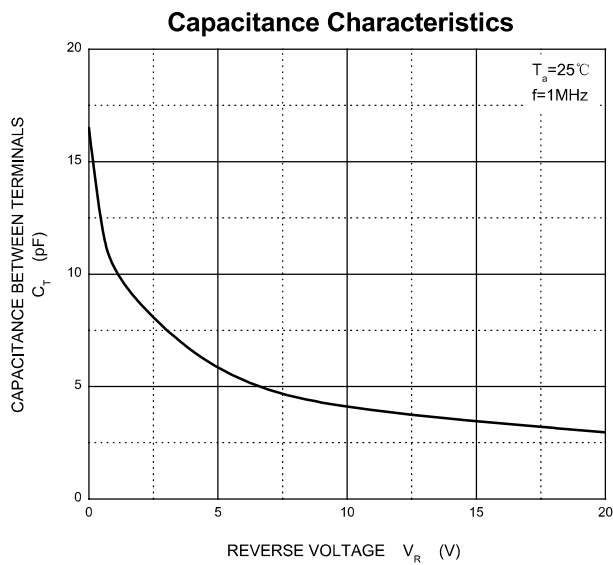
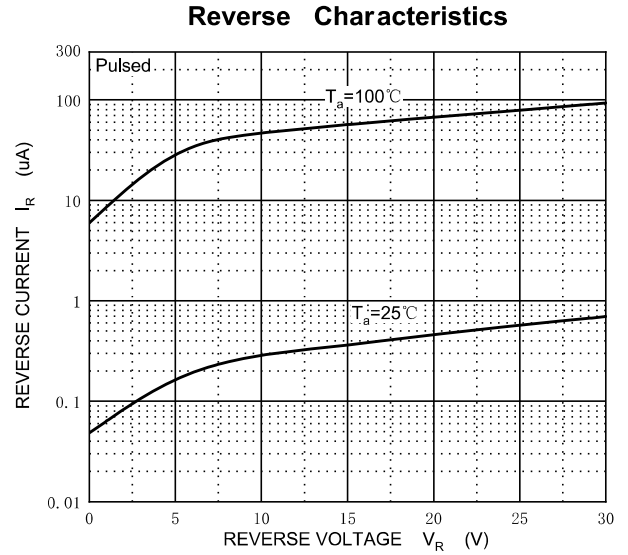
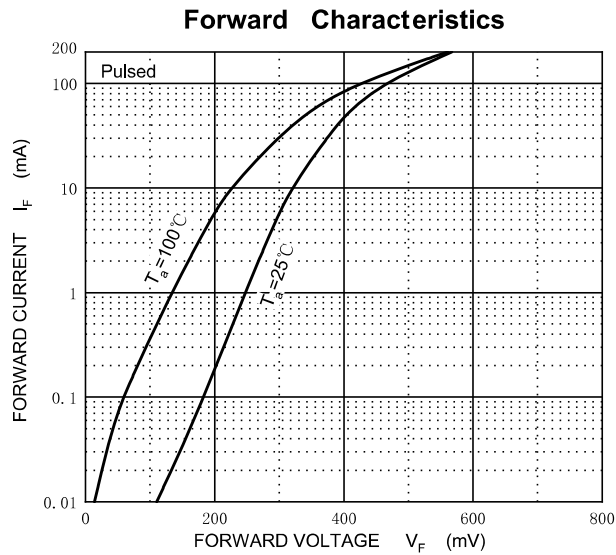
Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	30	V
V_{RWM}	Peak Working Reverse Voltage		
V_R	DC Blocking Voltage		
I_O	Forward Continuous Current	200	mA
I_{FRM}	Repetitive Peak Forward Current	300	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	600	
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	500	$^{\circ}\text{C/W}$
T_j	Operating Junction Temperature Range	-40 ~ +125	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55 ~ +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	30			V
Reverse current	I_R	$V_R=25\text{V}$			2	μA
Forward voltage	V_F	$I_F=1\text{mA}$			320	mV
		$I_F=10\text{mA}$			400	
		$I_F=30\text{mA}$			500	
		$I_F=100\text{mA}$			1000	
Total capacitance	C_{tot}	$V_R=1\text{V}, f=1\text{MHz}$			10	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$			5	ns

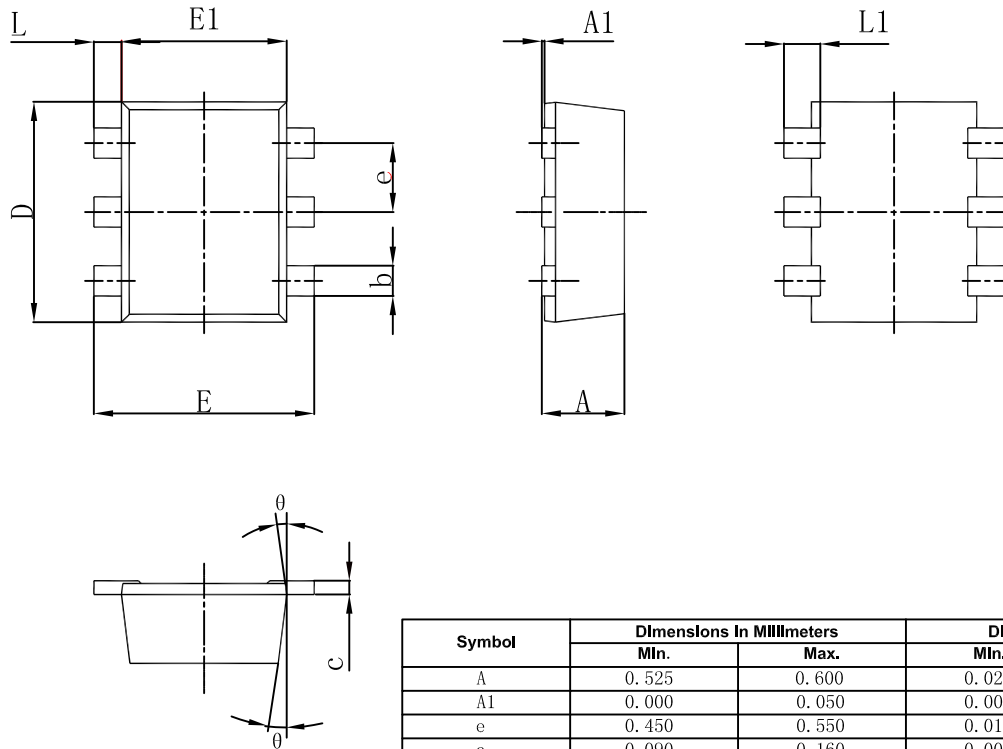


Typical Characteristics



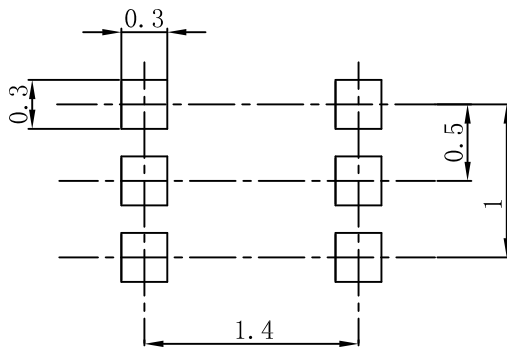


SOT - 563 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.525	0.600	0.021	0.024
A1	0.000	0.050	0.000	0.002
e	0.450	0.550	0.018	0.022
e	0.090	0.160	0.004	0.006
D	1.500	1.700	0.059	0.067
b	0.170	0.270	0.007	0.011
E1	1.100	1.300	0.043	0.051
E	1.500	1.700	0.059	0.067
L	0.100	0.300	0.004	0.012
L1	0.200	0.400	0.008	0.016
θ	7 °REF.		7 °REF.	

SOT - 563 Suggested Pad Layout

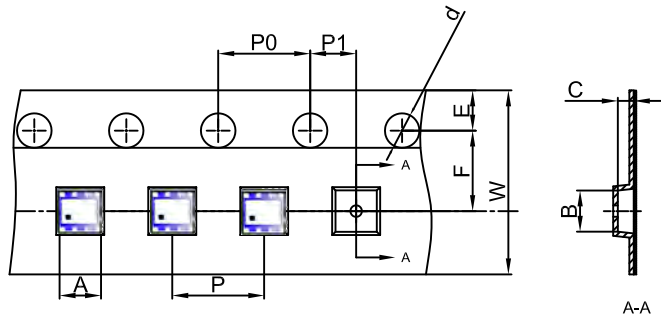


Note:

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



SOT-563 Embossed Carrier Tape



Packaging Description:

SOT-563 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-563	1.78	1.78	0.69	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-563 Tape Leader and Trailer

