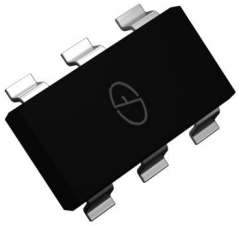
200mA,30V Schottky Barrier Diode Array

Features

- Fast Switching Speed
- Low Forward Voltage Drop
- Halogen-free、RoHS Compliant
- Surface Mount Package

RoHS
COMPLIANT



SOT-363

Marking:

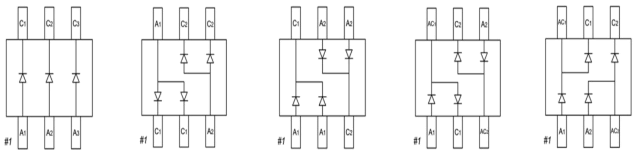
BAT54T：KLA
BAT54AD: KL6 BAT54SD: KL8
BAT54CD: KL7 BAT54BR: KLB

Mechanical Data

- Voltage Clamping
- Reverse Polarity Protection
- High Speed Switching

Pin definition

BAT54T BAT54AD BAT54CD BAT54SD BAT54BR



Maximum Ratings & Electrical Characteristics(TA=25℃ unless otherwise noted)

Parameter	Symbol	BAT54T	BAT54AD	BAT54CD	BAT54SD	BAT54BR	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30					V
Repetitive Peak Forward Current	I_{FRM}	300					mA
Non-repetitive Peak Forward Current	I_{FM}	200					mA
Non-Repetitive Peak Forward Surge Current @ t<1.0s	I_{FSM}	600					mA
Power Dissipation	P_D	200					mW
Junction-to-AmbientThermal Resistance	$R_{\Theta JA}$	625					℃/W
Junction and Storage Temperatureoa	T_J T_{STG}	-65~+150					℃

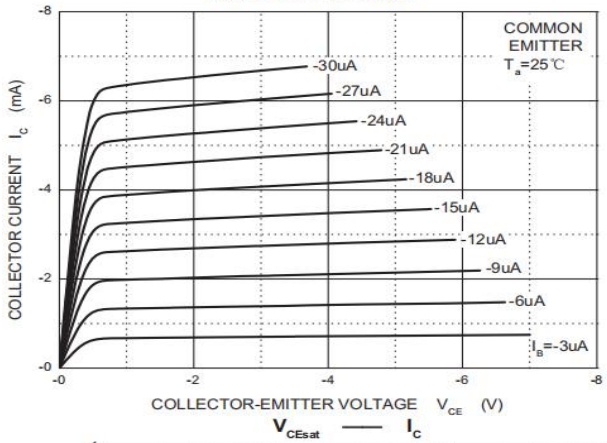
Electrical Specifications(TA=25℃ unless otherwise noted)

Parameter	Symbol	Test Conditions	Limits			Unit
			Min	Typ	Max	
Forward Voltage per Diode(Note1)	V_F	I_F = 0.1mA, T_J = 25°C			0.24	V
		I_F = 1mA, T_J = 25°C			0.32	V
		I_F = 10mA, T_J = 25°C			0.40	V
		I_F = 30mA, T_J = 25°C			0.50	V
		I_F = 100mA, T_J = 25°C			1.00	V
Reverse Voltage	V_R	I_R=100μA, T_J = 25°C	30			
ReverseCurrent@Rated$V_R$per Diode(Note2)	I_R	VR=25V, T_J = 25°C			2	uA
Total Capacitance	C_T	1MHz,V_R=1V	0.5		10	pF
Reverse Recovery Time	T_{RR}	I_F=I_R=10mA, R_L=100Ω I_{RR}=1mA			5	nS

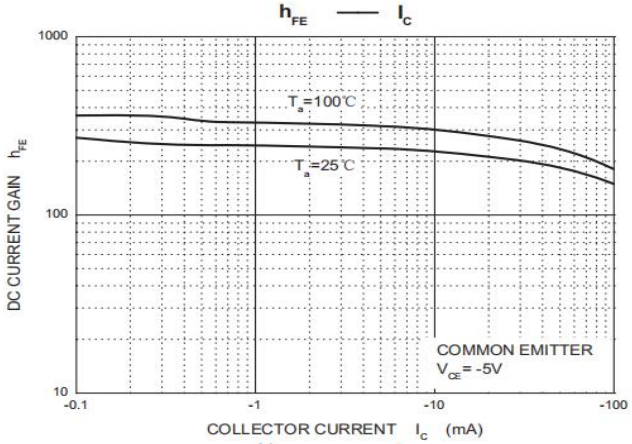
Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

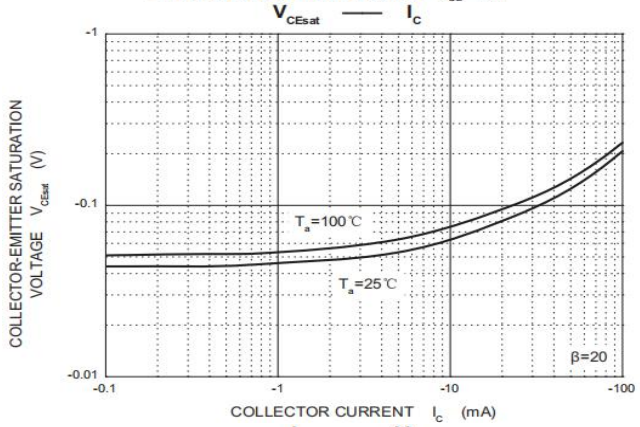
Static Characteristic



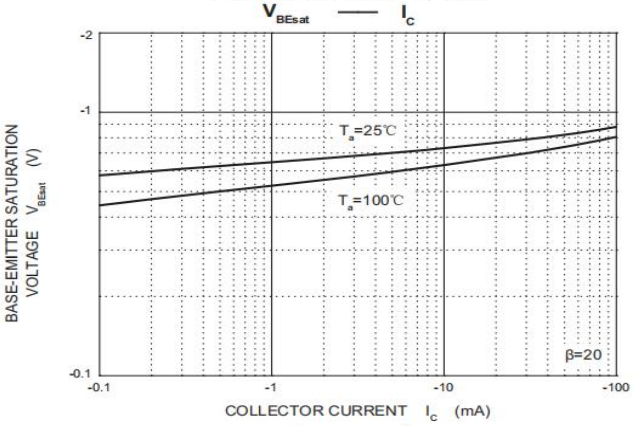
h_{FE} —— I_C



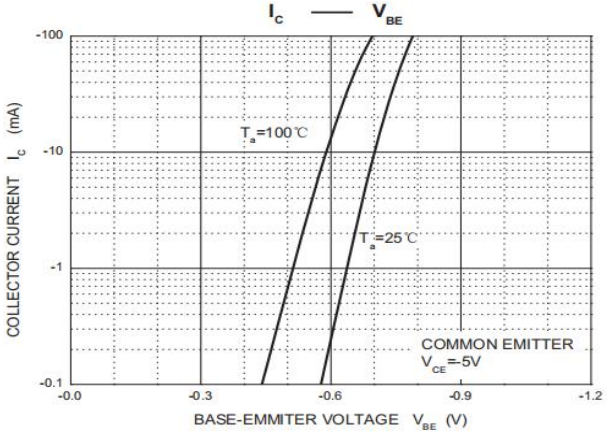
V_{CEsat} —— I_C



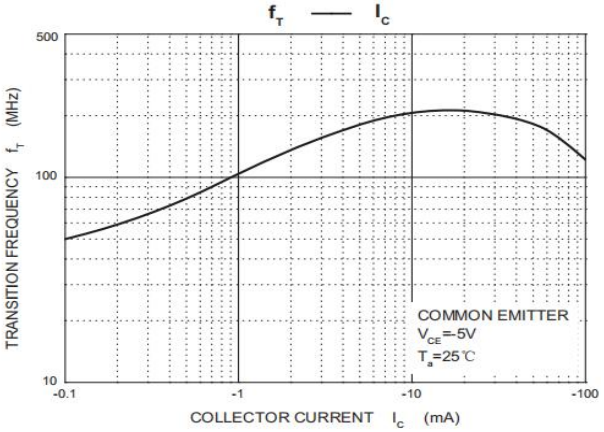
V_{BEsat} —— I_C



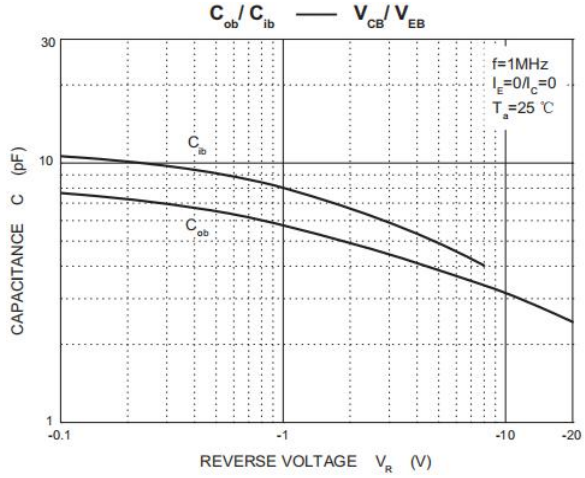
I_C —— V_{BE}



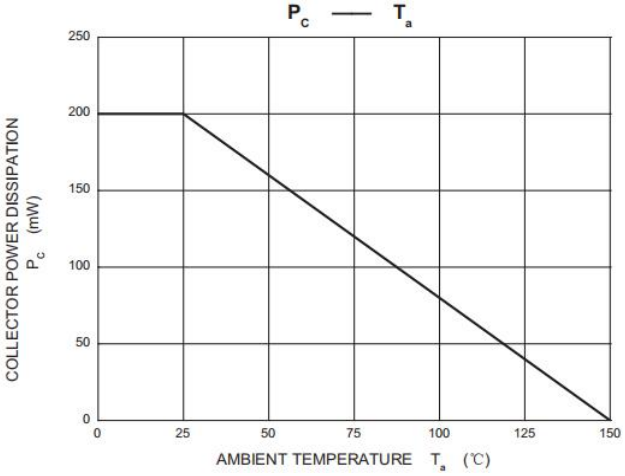
f_T —— I_C



C_{ob} / C_{ib} —— V_{CB} / V_{EB}

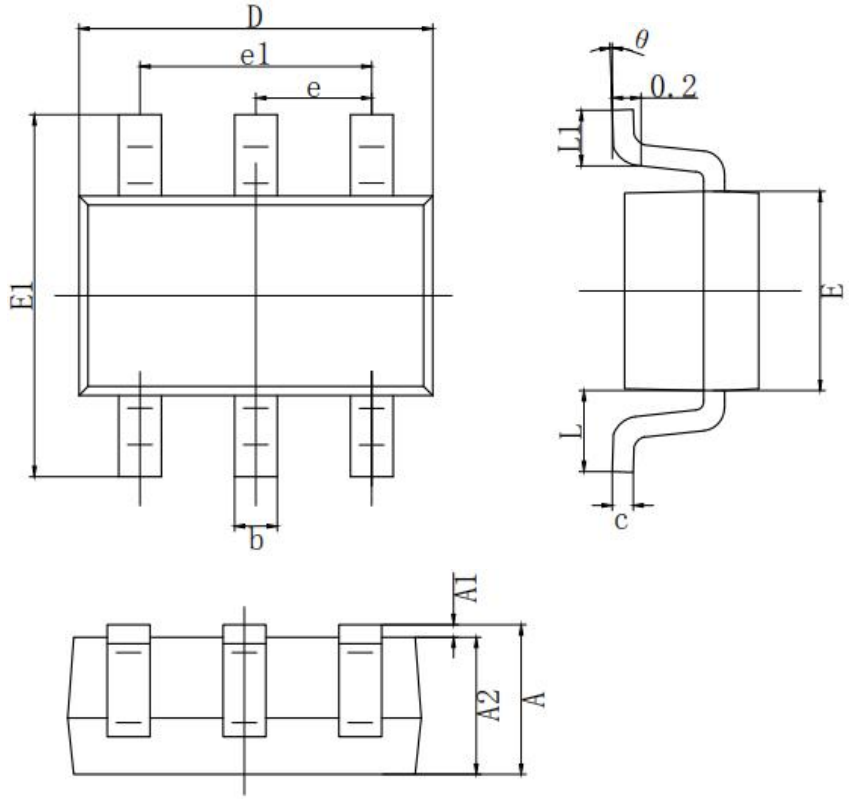


P_C —— T_a



Package Outline Dimensions

millimeters



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.460
θ	0°	8°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2019.06.07	First issue

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