

# 2SA2154MFV

## General-Purpose Amplifier Applications

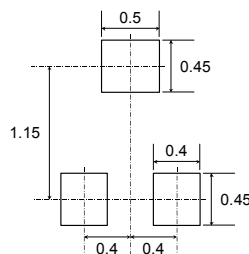
- High voltage and high current  
:  $V_{CE0} = -50\text{ V}$ ,  $I_C = -150\text{ mA}$  (max)
- Excellent  $h_{FE}$  linearity  
:  $h_{FE} (I_C = -0.1\text{ mA})/h_{FE} (I_C = -2\text{ mA}) = 0.95$  (typ.)
- High  $h_{FE}$  :  $h_{FE} = 120\sim400$
- Complementary to 2SC6026MFV
- Lead (Pb) - free

## Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-50	V
Collector-emitter voltage	$V_{CEO}$	-50	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-150	mA
Base current	$I_B$	-30	mA
Collector power dissipation	$P_C$	150*	mW
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{stg}$	-55~150	°C

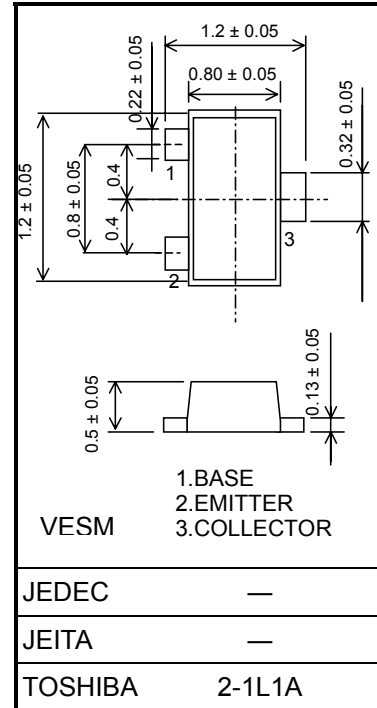
\* : Mounted on FR4 board (25.4 mm × 25.4 mm × 1.6mm)

## Mount Pad Dimensions (Reference)



Unit: mm

Unit: mm



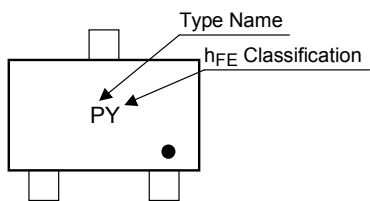
Weight: 0.0015 g (typ.)

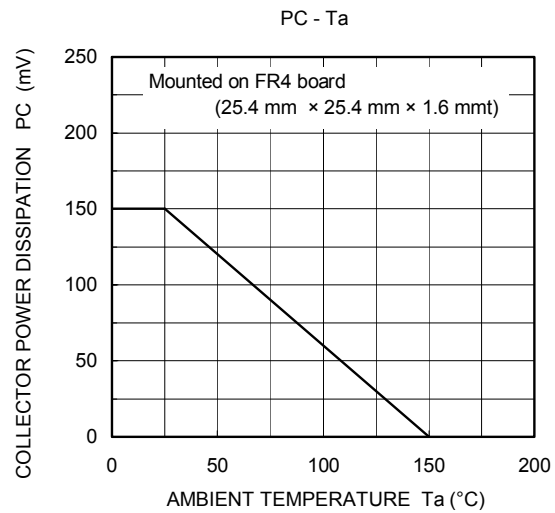
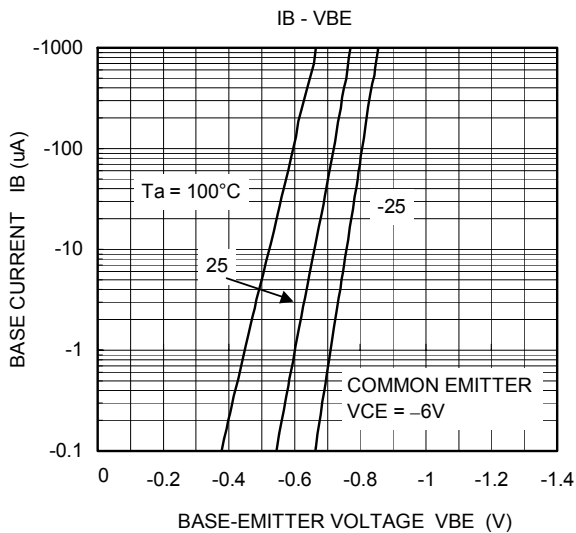
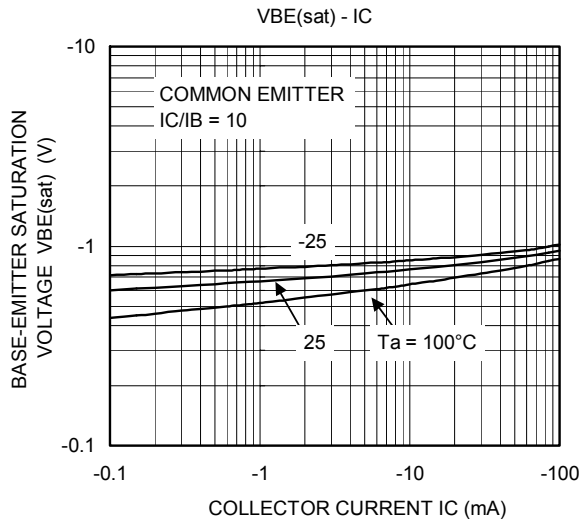
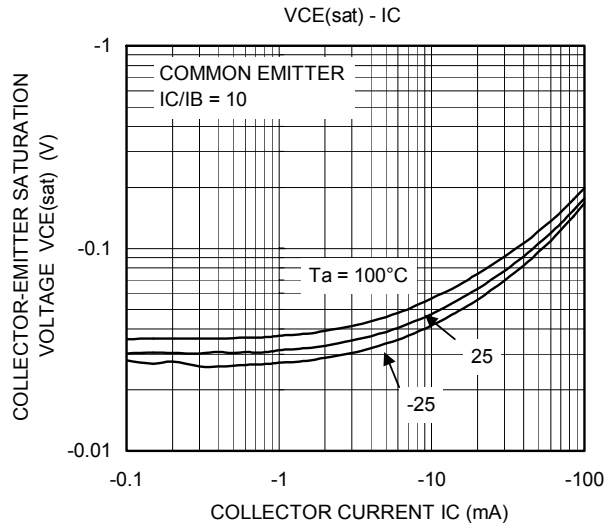
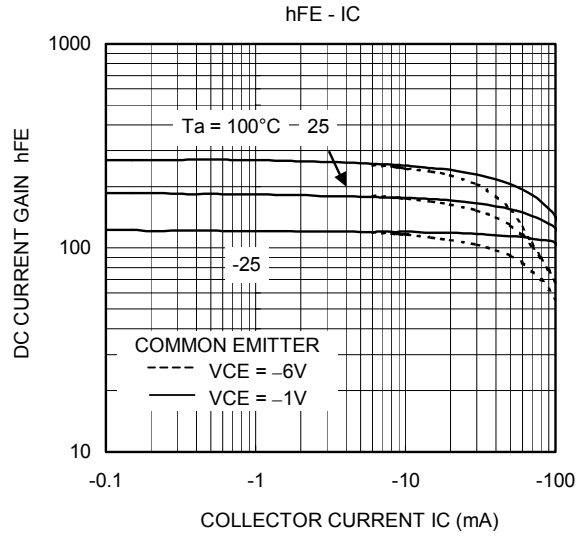
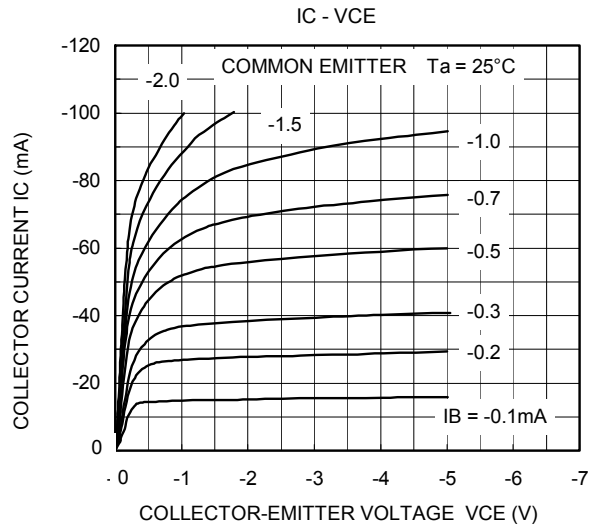
## Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -50\text{ V}$ , $I_E = 0$	—	—	-0.1	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -5\text{ V}$ , $I_C = 0$	—	—	-0.1	$\mu\text{A}$
DC current gain	$h_{FE}$ (Note)	$V_{CE} = -6\text{ V}$ , $I_C = -2\text{ mA}$	120	—	400	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{ mA}$ , $I_B = -10\text{ mA}$	—	-0.18	-0.3	V
Transition frequency	$f_T$	$V_{CE} = -10\text{ V}$ , $I_C = -1\text{ mA}$	80	—	—	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$	—	1.6	—	pF

Note:  $h_{FE}$  classification Y (Y): 120~240, GR (G): 200~400  
 ( ) marking symbol

## Marking





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