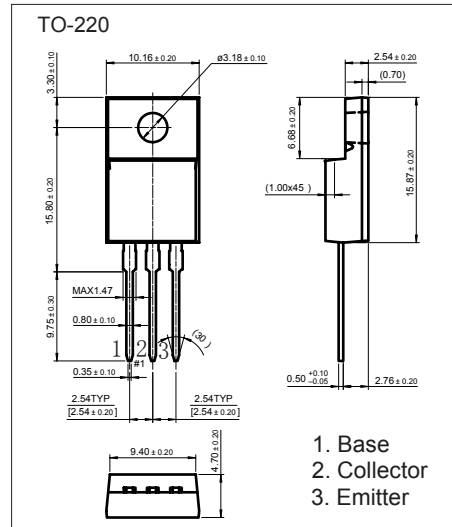


## TIP127A

### ■ Features

- Collector Current Capability  $I_{CM} = -8A$
- Collector Emitter Voltage  $V_{CEO} = -100V$
- Medium Power Complementary Silicon Transistors



### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	-100	V
Collector - Emitter Voltage	$V_{CEO}$	-100	
Emitter - Base Voltage	$V_{EBO}$	-5	
Collector Current - Continuous	$I_{CM}$	-8	A
Collector Power Dissipation	$P_C$	2	W
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	62.5	$^\circ C/W$
Thermal Resistance Junction to Case	$R_{\theta JC}$	1.92	
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55 to 150	

### ■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CBO}$	$I_C = -1 \text{ mA}, I_E = 0$	-100			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_C = -30 \text{ mA}, I_B = 0$	-100			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = -1 \text{ mA}, I_C = 0$	-5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -100 \text{ V}, I_E = 0$			-0.2	mA
Collector- emitter cut-off current	$I_{CEO}$	$V_{CE} = -50 \text{ V}, I_E = 0$			-0.5	
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5 \text{ V}, I_C = 0$			-2	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3 \text{ A}, I_B = -12 \text{ mA}$			-2	V
		$I_C = -5 \text{ A}, I_B = -20 \text{ mA}$			-4	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -3 \text{ A}, I_B = -12 \text{ mA}$			-1.2	
Base-emitter voltage	$V_{BE}$	$V_{CE} = -3 \text{ V}, I_C = -3 \text{ A}$			-2.5	
DC current gain	$h_{FE}$	$V_{CE} = -3 \text{ V}, I_C = -0.5 \text{ A}$	1000			
		$V_{CE} = -3 \text{ V}, I_C = -3 \text{ A}$	1000			
Collector output capacitance	$C_{ob}$	$V_{CB} = -10 \text{ V}, I_E = 0, f = 0.1 \text{ MHz}$			200	pF



# Typical Characteristics

