

**DESCRIPTION**

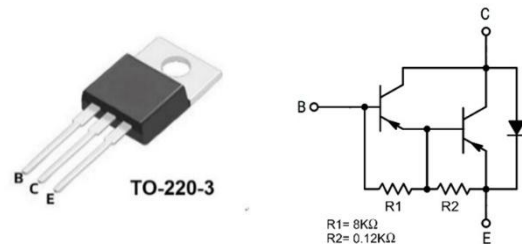
The TIP125_126_127 is available in TO-220-3 Package.

FEATURE

- Complementary to TIP120/121/122
- Available in TO-220-3 Package

ORDERING INFORMATION

Package Type	Part Number
TO-220-3	TIP125
	TIP126
	TIP127
Note	SPQ: 50pcs/Tube 1,000pcs/Box
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION

PIN#	DESCRIPTION
1	BASE
2	COLLECTOR
3	EMITTER

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise specified

V _{CBO} , Collector-Base Voltage	TIP125	-60V
	TIP126	-80V
	TIP127	-100V
V _{CEO} , Collector-Emitter Voltage	TIP125	-60V
	TIP126	-80V
	TIP127	-100V
V _{EBO} , Emitter-Base Voltage		-5V
I _C , Collector Current (DC)		-5A
P _C , Collector Dissipation	T _A = 25°C	2W
	T _C = 25°C	65W
T _{STG} , Storage Temperature		-65°C ~ + 150°C
T _J , Junction Temperature		+150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

**ELECTRICAL CHARACTERISTICS**T_A = 25°C, unless otherwise specified

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector-Emitter Breakdown Voltage	TIP125	V _{CEO(SUS)}	I _C = -100mA, I _B = 0	-60	-	-	V
	TIP126			-80	-	-	
	TIP127			-100	-	-	
Collector Cut-Off Current	TIP125	I _{CBO}	I _E = 0, V _{CB} = -60V	-	-	-1.0	mA
	TIP126		I _E = 0, V _{CB} = -80V	-	-	-1.0	
	TIP127		I _E = 0, V _{CB} = -100V	-	-	-1.0	
Collector Cut-Off Current	TIP125	I _{CEO}	I _E = 0, V _{CE} = -30V	-	-	-2.0	mA
	TIP126		I _E = 0, V _{CE} = -40V	-	-	-2.0	
	TIP127		I _E = 0, V _{CE} = -50V	-	-	-2.0	
Emitter Cut-Off Current		I _{EBO}	I _C = 0, V _{EB} = -5V	-	-	-2.0	mA
DC Current Gain*		h _{FE}	I _C = -0.5A, V _{CE} = -3V	1000	-	-	-
			I _C = -3A, V _{CE} = -3V	1000	-	-	
Collector-Emitter Saturation Voltage*		V _{CE(sat)}	I _B = -12mA, I _C = -3A	-	-	-2.0	V
			I _B = -20mA, I _C = -5A	-	-	-4.0	
Base-Emitter on Voltage*		V _{BE(ON)}	I _C = -3A, V _{CE} = -3V	-	-	-2.5	V
Output Capacitance		C _{ob}	I _E = 0, V _{CB} = -10V, f = 0.1MHz	-	-	200	pF

*Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2.0%.



TYPICAL CHARACTERISTICS

Fig 1. DC Current Gain

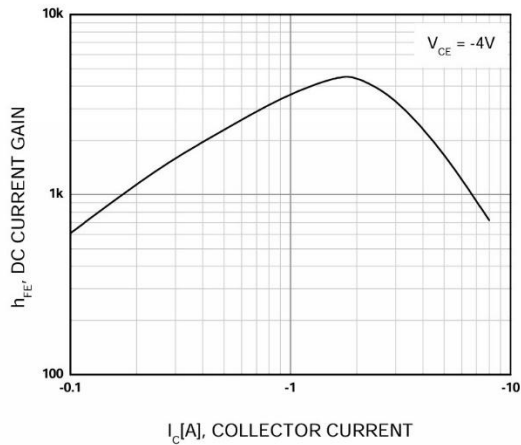


Fig 2. Base-Emitter Saturation Voltage
vs. Collector-Emmitter Saturation Voltage

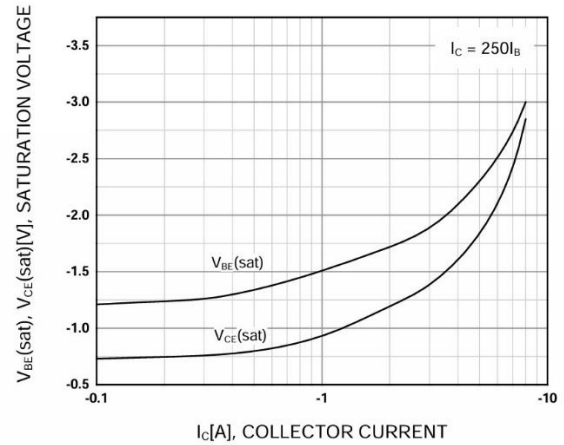


Fig 3. Power Derating

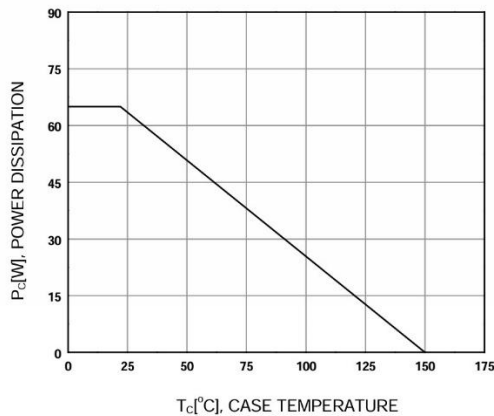


Fig 4. Safe Operating Area

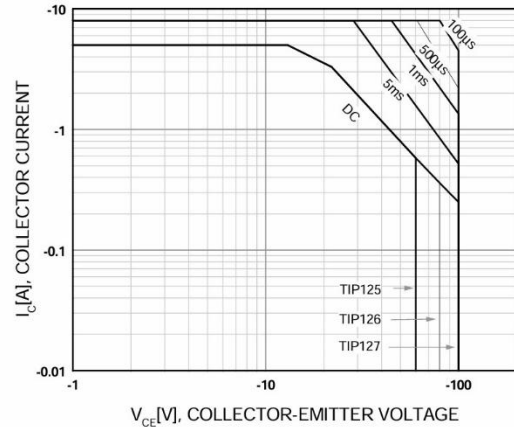
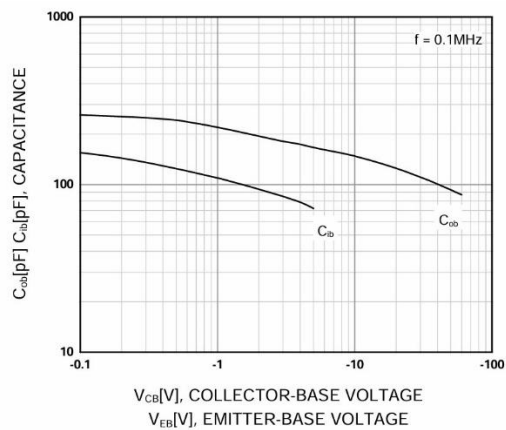


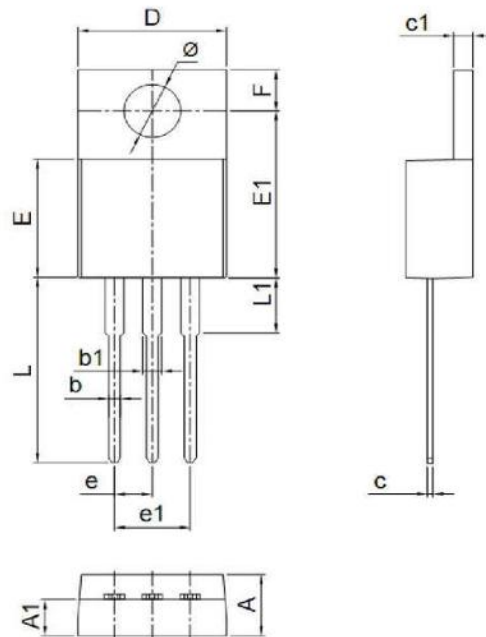
Fig 5. Output and Input Capacitance
vs. Reverse Voltage





PACKAGE INFORMATION

Dimension in TO-220-3 Package (Unit: mm)



DIM	MILLIMETERS	
	MIN	MAX
A	4.300	4.700
A1	2.520	2.820
b	0.710	0.910
b1	1.170	1.370
c	0.300	0.500
c1	1.170	1.370
D	9.900	10.200
E	8.500	8.900
E1	12.000	12.500
e	2.440	2.640
e1	4.880	5.280
F	2.600	2.800
L	13.200	13.800
L1	3.800	4.200
Φ	3.600	3.960



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