

2SA1012

Silicon PNP Transistors



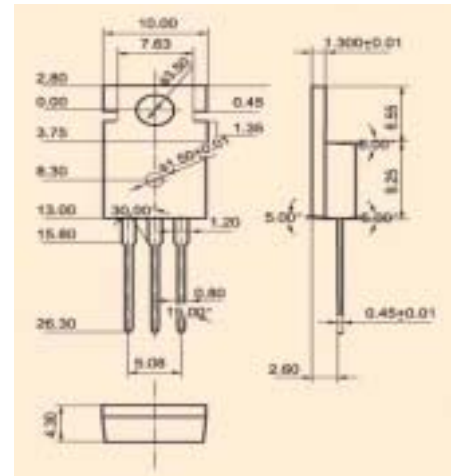
B C E

◆ Features

- . With TO-220 package
- . Complementary to 2SC2562

◆ Absolute Maximum Ratings $T_c=25^\circ\text{C}$

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to base voltage	-60	V
V_{CEO}	Collector to emitter voltage	-50	V
V_{EBO}	Emitter to base voltage	-5	V
I_B	Base current		A
I_C	Collector current	-5	A
P_C	Collector power dissipation	25	W
T_j	Junction temperature	150	$^\circ\text{C}$
T_{stg}	Storage temperature	-55~150	$^\circ\text{C}$



TO-220

◆ Electrical Characteristics $T_c=25^\circ\text{C}$

SYMBOL	PARAMETER	CONDITIONS	MIN	Typ	MAX	UNIT
I_{CBO}	Collector-base cut-off current	$V_{CB}=-50\text{V}; I_E=0$			-1	μA
I_{EBO}	Emitter-base cut-off current	$V_{EB}=-5\text{V}; I_C=0$			-1	μA
I_{CEO}	Collector-emitter cut-off current					
V_{CBO}	Collector-base breakdown voltage					
$V_{(BR)ceo}$	Collector-emitter breakdown voltage	$I_C=-10\text{mA}; I_B=0$	-50			V
V_{EBO}	Emitter-base breakdown voltage					
$V_{CE(sat-1)}$	Collector-emitter saturation voltages	$I_C=-8\text{A}; I_B=-0.15\text{A}$		-0.2	-0.4	V
$V_{CE(sat-2)}$	Collector-emitter saturation voltages					
h_{FE-1}	Forward current transfer ratio	$I_C=-1\text{A}; V_{CE}=-1\text{V}$	70		240	
h_{FE-2}	Forward current transfer ratio	$I_C=-3\text{A}; V_{CE}=-1\text{V}$	30			
$V_{BE(sat)1}$	Base-emitter saturation voltages	$I_C=-8\text{A}; I_B=-0.15\text{A}$		-0.9	-1.2	V
$V_{BE(sat)2}$	Base-emitter saturation voltages					
C_{OB}	Collector Output Capacitance	$V_{CB}=-10\text{V}; I_E=0; f=1\text{MHz}$		70		pF
f_T	Transition frequency	$I_C=-1\text{A}; V_{CE}=-4\text{V}$		60		MHz