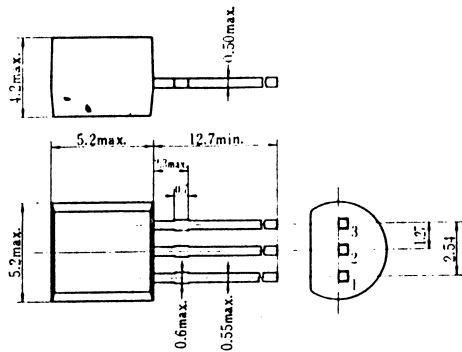


2SC458

SILICON NPN



1. : Emitter
2. : Collector
3. : Base

(Dimensions in mm)

(JEDEC TO-92)

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Symbol	2SC458	Unit
V_{CB0}	30	V
V_{CE0}	30	V
V_{EB0}	5	V
I_C	100	mA
I_E	-100	mA
P_C	200	mW
T_j	125	$^\circ\text{C}$
T_{stg}	-55 ~ +125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

Symbol	Test Condition	min	typ	max	Unit
$V_{(BR)CB0}$	$I_C=10\mu\text{A}, I_E=0$	30	—	—	V
$V_{(BR)CE0}$	$I_C=1\text{mA}, R_{BE}=\infty$	30	—	—	V
$V_{(BR)EB0}$	$I_E=10\mu\text{A}, I_C=0$	5	—	—	V
I_{CB0}	$V_{CB}=18\text{V}, I_E=0$	—	—	0.5	μA
I_{EB0}	$V_{EB}=2\text{V}, I_C=0$	—	—	0.5	μA
h_{FE}^*	$V_{CE}=12\text{V}, I_C=2\text{mA}$	100	—	500	
$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$	—	—	0.2	V
V_{BE}	$V_{CE}=12\text{V}, I_C=2\text{mA}$	—	0.67	0.75	V
f_T	$V_{CE}=12\text{V}, I_C=2\text{mA}$	—	230	—	MHz
C_M	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	—	—	3.5	pF
NF	$V_{CE}=6\text{V}, I_C=0.1\text{mA}, f=1\text{kHz}, R_s=500\Omega$	—	4	10	dB
h_{ie}	$V_{CE}=5\text{V}, I_C=0.1\text{mA}, f=270\text{Hz}$	—	16.5	—	k Ω
h_{re}		—	70	—	$\times 10^{-4}$
h_{fe}		—	130	—	
h_{oe}		—	11.0	—	μS

(1)	(2)	(3)
100 200	160 320	250 500

