SILICON NPN POWER TRANSISTOR

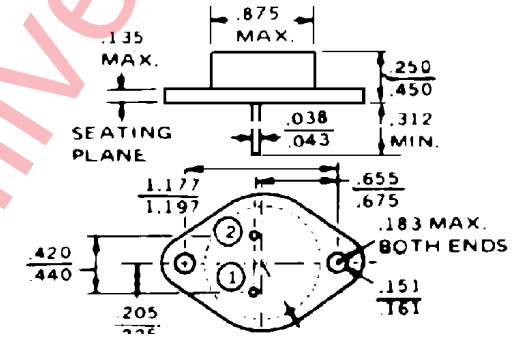
DESCRIPTION:

The **2N3442** is Designed for General Purpose Amplifier and Switching Applications.

MAXIMUM RATINGS

I_C	10 A
I_B	7.0 A
V_{CE}	140 V
P_{DISS}	117 W @ T_C = 25 ^{O}C
T_J	-65 ^{O}C to +200 ^{O}C
T_{STG}	-65 ^{O}C to +200 ^{O}C
θ_{JC}	1.50 ^{O}C/W

PACKAGE STYLE TO- 3



1 = Base 2 = Emitter Case = Collector

CHARACTERISTICS T_C = 25 ^{O}C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I_C = 200 mA	140			V
I_{CEX}	V_{CE} = 140 V V_{BE} = -1.5 V T_C = 150 ^{O}C			5.0 30	mA
I_{CEO}	V_{CE} = 140 V			200	mA
I_{EBO}	V_{EB} = 7.0 V			5.0	mA
h_{FE}	V_{CE} = 4.0 V I_C = 3.0 A V_{CE} = 4.0 V I_C = 10 A	20 7.5		70	---
$V_{CE(SAT)}$	I_C = 10 A I_B = 2.0 A			5.0	V
$V_{BE(ON)}$	V_{CE} = 4.0 V I_C = 10 A			5.7	V
f_t	V_{CE} = 4.0 V I_C = 2.0 A f = 40 KHz	80			KHz
h_{fe}	V_{CE} = 4.0 V I_C = 2.0 A f = 1.0 KHz	12		72	---