SILICON NPN POWER TRANSISTOR

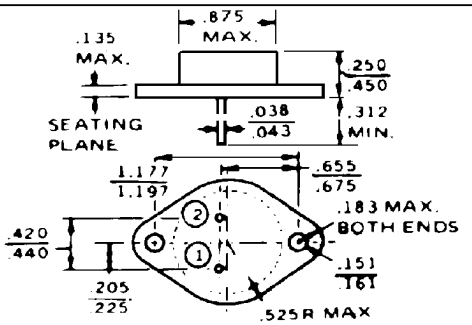
DESCRIPTION:

The **2N3716** is Designed for General Purpose Amplifier and Switching Applications.

MAXIMUM RATINGS

I_C	10 A
I_B	4.0 A
V_{CE}	80 V
P_{DISS}	150 W @ T_C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +200 °C
θ_{JC}	1.17 °C/W

PACKAGE STYLE TO-3



1 = BASE 2 = EMITTER 3 = COLLECTOR

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I_C = 200 mA			80			V
I_{CEX}	V_{CE} = 100 V	V_{BE} = -1.5 V	T_C = 25 °C			1.0	mA
	V_{CE} = 80 V	V_{BE} = -1.5 V	T_C = 150 °C			10	
I_{EBO}	V_{EB} = 7.0 V					5.0	mA
h_{FE}	V_{CE} = 2.0 V	I_C = 1.0 A		50		150	---
	V_{CE} = 2.0 V	I_C = 3.0 A		30			
$V_{CE(SAT)}$	I_C = 5.0 A	I_B = 0.5 A				0.8	V
$V_{BE(SAT)}$	I_C = 5.0 A	I_B = 0.5 A				1.5	V
$V_{BE(ON)}$	V_{CE} = 2.0 V	I_C = 3.0 A				1.5	V
h_{fe}	V_{CE} = 10 V	I_C = 500 mA	f = 1.0 MHz	10			KHz
f_t	V_{CE} = 10 V	I_C = 0.5 A	f = 1.0 MHz	4.0			MHz
t_r	I_C = 5.0 A	I_{B1} = I_{B2} = 0.5 A			0.45		µS
t_s	I_C = 5.0 A	I_{B1} = I_{B2} = 0.5 A			0.3		µS
t_f	I_C = 5.0 A	I_{B1} = I_{B2} = 0.5 A			0.4		µS