



2SA 816 · 2SC1626

PNP · NPN SILICON PLANAR EPITAXIAL POWER TRANSISTORS

MICRO ELECTRONICS

CASE TO-220B

THE 2SA816 (PNP) AND 2SC1626 (NPN) ARE SILICON PLANAR EPITAXIAL COMPLEMENTARY PAIR SPECIALLY DESIGNED FOR THE DRIVER STAGES OF 30-50W HI-FI AMPLIFIERS. THEY ARE ALSO SUITABLE FOR MEDIUM SPEED SWITCHING UP TO 2A PEAK CURRENT.



BCE

ABSOLUTE MAXIMUM RATINGS

For p-n-p devices, voltage and current values are negative.

Collector-Base Voltage	V_{CBO}	80V
Collector-Emitter Voltage	V_{CEO}	80V
Emitter-Base Voltage	V_{EBO}	5V
Collector Current	I_C	750mA
Collector Peak Current ($t \leq 10\text{ms}$)	I_{CM}	2A
Total Power Dissipation @ $T_C \leq 25^\circ\text{C}$	P_{tot}	10W
@ $T_A \leq 25^\circ\text{C}$		1.5W
Junction Temperature	T_j	150°C
Storage Temperature Range	T_{stg}	-55 to +150°C

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV_{CBO}	80			V	$I_C = 0.1\text{mA}$ $I_B = 0$
Collector-Emitter Breakdown Voltage	$LV_{CEO} *$	80			V	$I_C = 10\text{mA}$ $I_B = 0$
Collector Cutoff Current	I_{CBO}			0.5	μA	$V_{CB} = 30\text{V}$ $I_E = 0$
Emitter Cutoff Current	I_{EBO}			1	μA	$V_{EB} = 5\text{V}$ $I_C = 0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)} *$			0.5	V	$I_C = 500\text{mA}$ $I_B = 50\text{mA}$
Base-Emitter Voltage	$V_{BE} *$			1	V	$I_C = 500\text{mA}$ $V_{CE} = 2\text{V}$
D.C. Current Gain (Note)	$H_{FE} 1 *$	70		240		$I_C = 150\text{mA}$ $V_{CE} = 2\text{V}$
	$H_{FE} 2 *$	40				$I_C = 500\text{mA}$ $V_{CE} = 2\text{V}$
Current Gain-Bandwidth Product	f_T	50	100		MHz	$I_C = 150\text{mA}$ $V_{CE} = 2\text{V}$
Collector-Base Capacitance	C_{ob}		20		pF	$V_{CB} = 10\text{V}$ $I_E = 0$
			13		pF	$f = 1\text{MHz}$

*Pulse Test : Pulse Width=0.3ms, Duty Cycle=1%

note : $H_{FE} 1$ is classified as follows. Group O : 70-140, Group Y : 120-240

MICRO ELECTRONICS LTD.

38 HUNG TO ROAD, KWUN TONG, HONG KONG. TELEX 43510
KWUN TONG P. O. BOX 69477 CABLE ADDRESS "MICROTRON"
TELEPHONE: 3-430181-6 3-893363 3-892423

FAX: 3-410321

1-2-8mp

TYPICAL CHARACTERISTICS(T_A=25°C unless otherwise noted)