2SA 816 · 2SC 1626

PNP . NPN SILICON PLANAR EPITAXIAL POWER TRANSISTORS

MICRO ELECTRONICS

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.

CASE TO-220B

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 ($t \leqslant 10mS$)	I_{CM}	2A
Total Power Dissipation @ $T_C \leqslant 25^oC$	P_{tot}	10W
@ $T_A \leqslant 25^oC$		1.5W
Junction Temperature	T_j	150°C
Storage Temperature Range	T_{stg}	-55 to +150°C

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV_{CBO}	80			V	I_C=0.1mA I_B=0
Collector-Emitter Breakdown Voltage	LV_{CEO} *	80			V	I_C=10mA I_B=0
Collector Cutoff Current	I_{CBO}			0.5	μA	V_{CB}=30V I_E=0
Emitter Cutoff Current	I_{EBO}			1	μA	V_{EB}=5V I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$ *			0.5	V	I_C=500mA I_B=50mA
Base-Emitter Voltage	V_{BE} *			1	V	I_C=500mA V_{CE}=2V
D.C. Current Gain (Note)	H_{FE} 1 *	70		240		I_C=150mA V_{CE}=2V
	H_{FE} 2 *	40				I_C=500mA V_{CE}=2V
Current Gain-Bandwidth Product	f_T	50	100		MHz	I_C=150mA V_{CE}=2V
Collector-Base Capacitance 2SA816	Cob		20		pF	V_{CB}=10V I_E=0
2SC1626			13		pF	f=1MHz

*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

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TYPICAL CHARACTERISTICS

(T_A=25°C unless otherwise noted)