

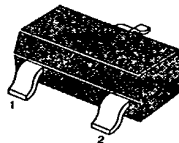
KSC2859**NPN EPITAXIAL SILICON TRANSISTOR****LOW FREQUENCY POWER AMPLIFIER**

• Complement to KSA1182

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	35	V
Collector-Emitter Voltage	V_{CE0}	30	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	150	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ\text{C}$

SOT-23



1. Base 2. Emitter 3. Collector

3

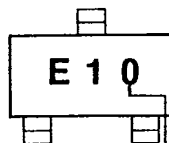
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=35\text{V}, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=5\text{V}, I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=1\text{V}, I_C=100\text{mA}$	70		240	
		$V_{CE}=6\text{V}, I_C=400\text{mA}$	25			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		0.1	0.25	V
Base-Emitter On Voltage	$V_{BE(on)}$	$I_C=100\text{mA}, V_{CE}=1\text{V}$		.8	1.0	V
Current Gain-Bandwidth Product	f_T	$I_C=20\text{mA}, V_{CE}=6\text{V}$		300		MHz
Output Capacitance	C_{ob}	$V_{CB}=6\text{V}, I_E=0$ $f=1\text{MHz}$		7		pF

 h_{FE} CLASSIFICATION

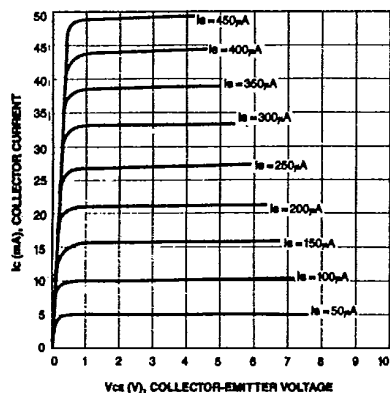
Classification	O	Y
h_{FE}	70-140	120-240

Marking

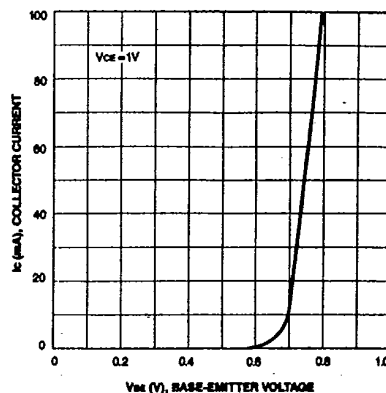
 h_{FE} grade

T-29-15

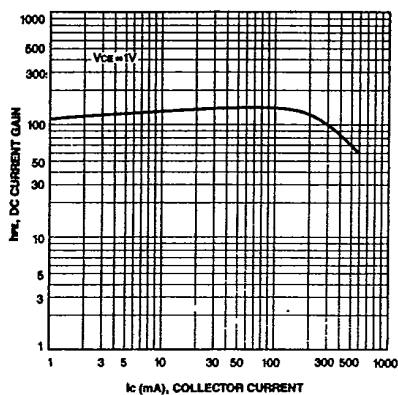
STATIC CHARACTERISTIC



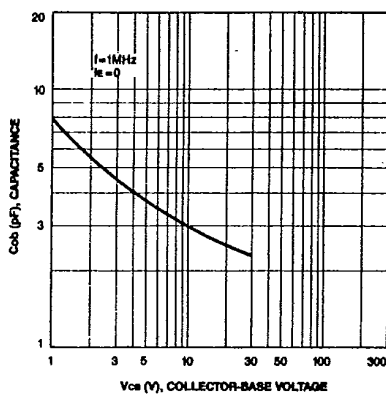
BASE-EMITTER ON VOLTAGE



DC CURRENT GAIN



COLLECTOR OUTPUT CAPACITANCE

BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE