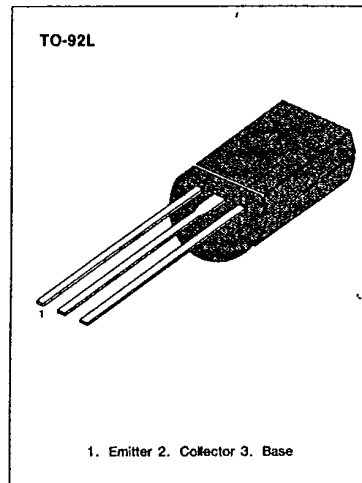


KSC2500**NPN EPITAXIAL SILICON TRANSISTOR****MEDIUM POWER AMPLIFIER
LOW SATURATION**

- $V_{CE(sat)}=0.5V$ ($I_C=2A$, $I_B=50mA$)

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CES}	30	V
Collector-Emitter Voltage	V_{CEO}	10	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	2	A
*Collector Current (Pulse)	I_C	5	A
Base Current	I_B	0.5	A
Collector Dissipation	P_C	900	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55~150	$^\circ C$



3

* $PW \leq 10ms$, Duty Cycle $\leq 30\%$ **ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)**

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=30V$, $I_E=0$			100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=6V$, $I_C=0$			100	nA
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=10mA$, $I_B=0$	10			V
Emitter Base Breakdown Voltage	BV_{EBO}	$I_E=1mA$, $I_C=0$	6			V
DC Current Gain	h_{FE1}	$V_{CE}=1V$, $I_C=0.5A$	140		600	
	h_{FE2}	$V_{CE}=1V$, $I_C=2A$	70	200		
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A$, $I_B=50mA$		0.2	0.5	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=1V$, $I_C=2A$		0.86	1.5	V
Current Gain Bandwidth Product	f_T	$V_{CE}=1V$, $I_C=0.5A$		150		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1MHz$		27		pF

 $h_{FE}(1)$ CLASSIFICATION

Classification	A	B	C	D
$h_{FE}(1)$	140-240	200-330	300-450	420-600

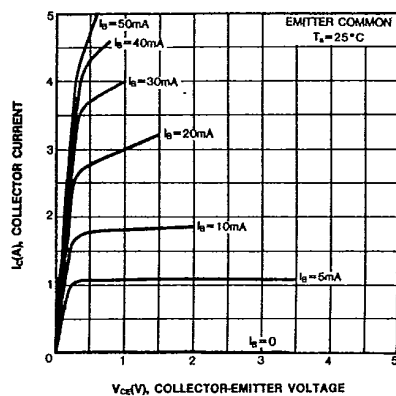


KSC2500

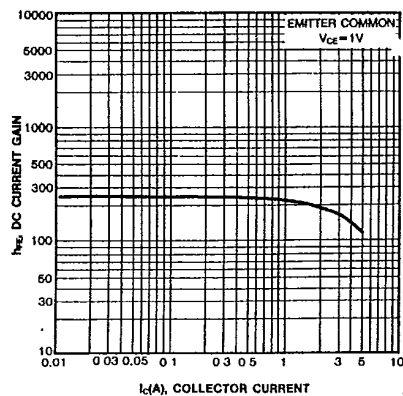
NPN EPITAXIAL SILICON TRANSISTOR

T-29-23

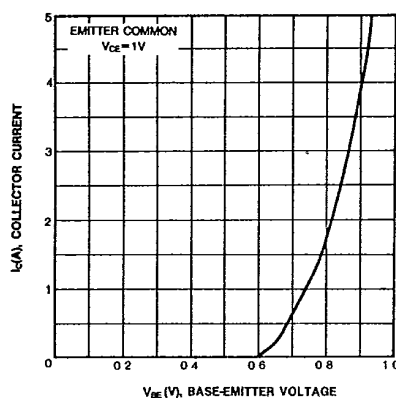
STATIC CHARACTERISTIC



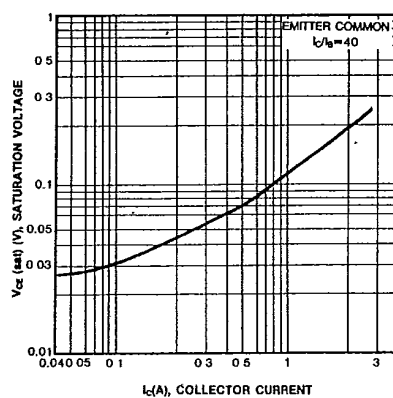
DC CURRENT GAIN



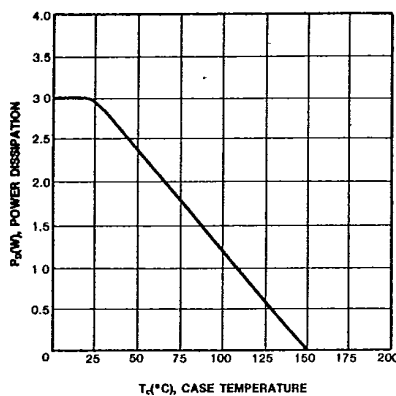
BASE-EMITTER ON VOLTAGE



COLLECTOR-EMITTER SATURATION VOLTAGE



POWER DERATING



SAFE OPERATING AREA

