

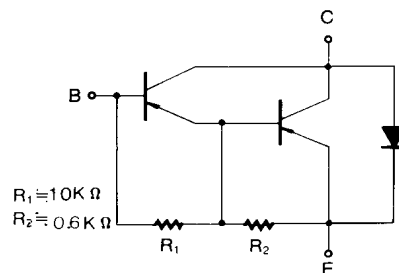
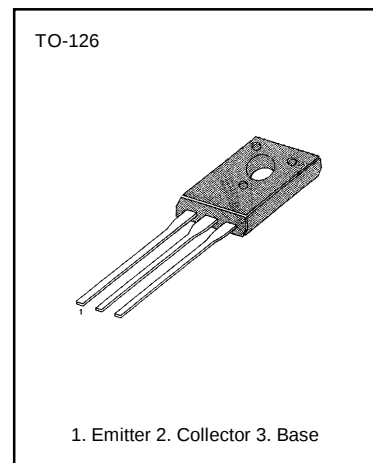
KSE800/801/803

NPN EPITAXIAL SILICON DARLINGTON TRANSISTOR

HIGH DC CURRENT GAIN
MIN $h_{FE} = 750$ @ $I_C = -1.5$ and $-2.0A$ DC
MONOLITHIC CONSTRUCTION WITH
BUILT-IN BASE-EMITTER RESISTORS
 Complement to KSE700/701/702/703

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector- Base Voltage	V_{CBO}	60	V
: KSE800/801		80	V
: KSE802/803			
Collector-Emitter Voltage	V_{CEO}	60	V
: KSE800/801		80	V
: KSE802/803			
Emitter- Base Voltage	V_{EBO}	5	V
Collector Current	I_C	4	A
Base Current	I_B	0.1	A
Collector Dissipation ($T_C = 25^\circ C$)	P_C	40	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ C$

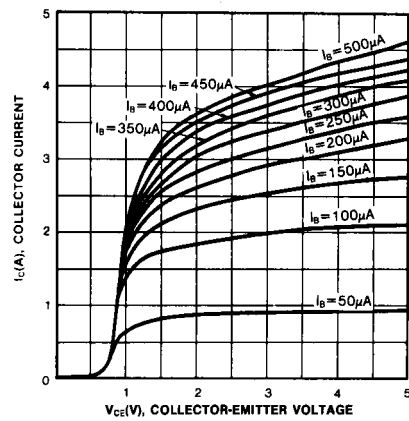


ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ C$)

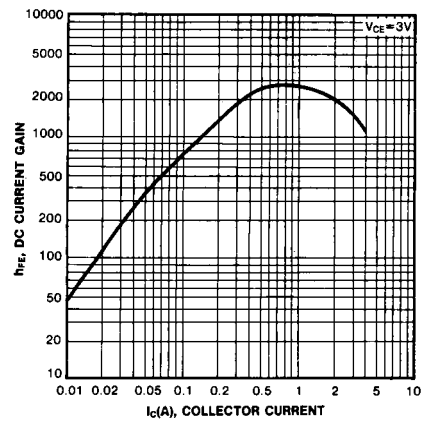
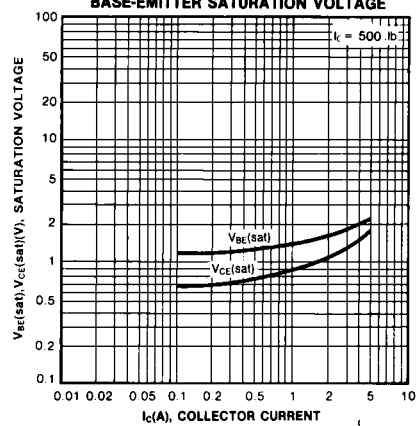
Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = 50mA, I_B = 0$	60		V
: KSE800/801			80		V
: KSE802/803					
Collector Cutoff Current	I_{CEO}	$V_{CE} = 60V, I_B = 0$		100	μA
: KSE800/801		$V_{CE} = 80V, I_B = 0$		100	μA
: KSE802/803					
Collector Cutoff Current	I_{CBO}	$V_{CB} = \text{Rated } BV_{CEO}, I_E = 0$		100	μA
		$V_{CB} = \text{Rated } BV_{CEO}, I_E = 0$		500	μA
		$T_C = 100^\circ C$			
Emitter Cutoff Current	I_{EBO}	$V_{BE} = 5V, I_C = 0$		2	mA
DC Current Gain	h_{FE}	$V_{CE} = 3V, I_C = 1.5A$	750		
: KSE801/803		$V_{CE} = 3V, I_C = 2A$	750		
: ALL DEVICES		$V_{CE} = 3V, I_C = 4A$	100		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1.5A, I_B = 30mA$		2.5	V
: KSE800/802		$I_C = 2A, I_B = 40mA$		2.8	V
: KSE801/803		$I_C = 4A, I_B = 40mA$		3	V
: ALL DEVICES					
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 3V, I_C = 1.5A$		1.2	V
: KSE800/802		$V_{CE} = 3V, I_C = 2A$		2.5	V
: KSE801/803		$V_{CE} = 3V, I_C = 4A$		3	V
: ALL DEVICES					



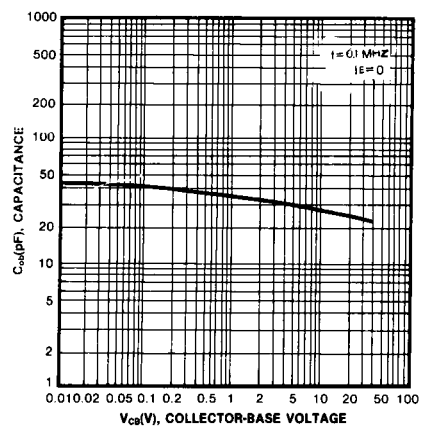
STATIC CHARACTERISTIC



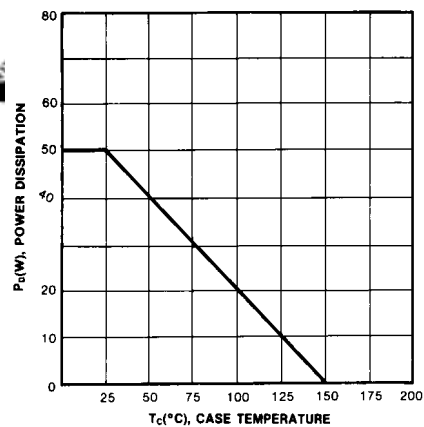
DC CURRENT GAIN

COLLECTOR-EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE

COLLECTOR OUTPUT CAPACITANCE



POWER DERATING



SAFE OPERATING AREA

