

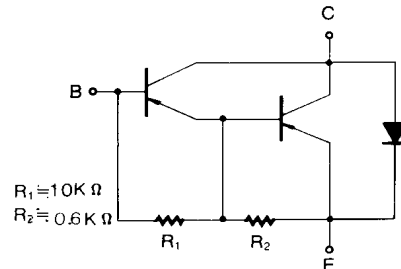
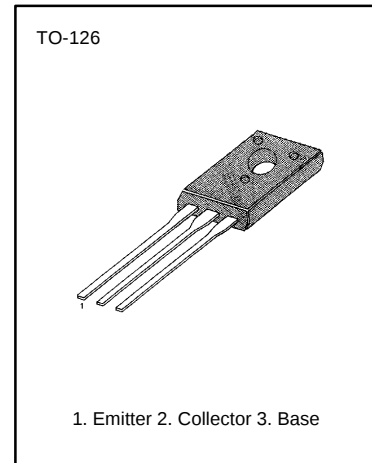
NPN EPITAXIAL KSE800/801/803 SILICON DARLINGTON TRANSISTOR

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

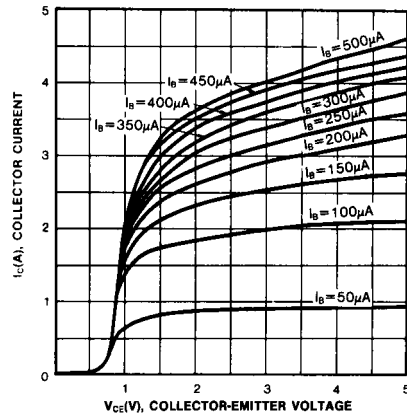


ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$)

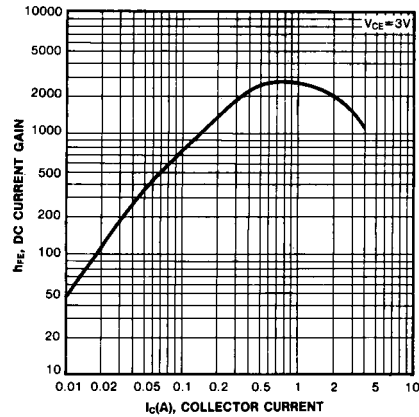
Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = 50\text{mA}, I_B = 0$	60		V
: KSE800/801			80		V
: KSE802/803					
Collector Cutoff Current	I_{CEO}	$V_{CE} = 60\text{V}, I_B = 0$		100	μA
: KSE800/801		$V_{CE} = 80\text{V}, I_B = 0$		100	μA
: KSE802/803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

NPN EPITAXIAL KSE800/801/803 SILICON DARLINGTON TRANSISTOR

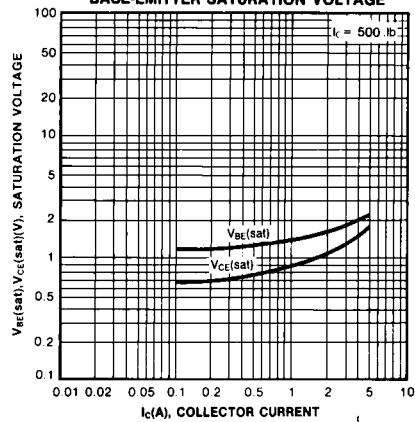
STATIC CHARACTERISTIC



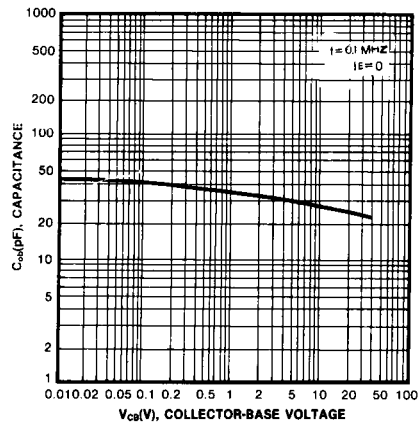
DC CURRENT GAIN



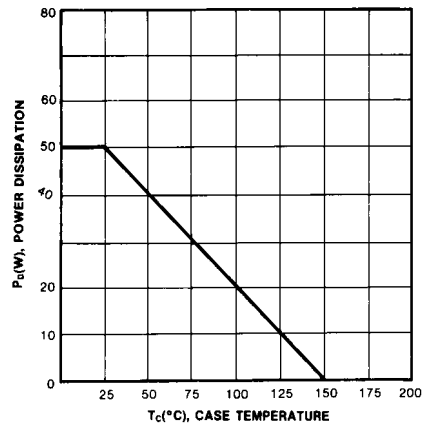
**COLLECTOR-EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE**



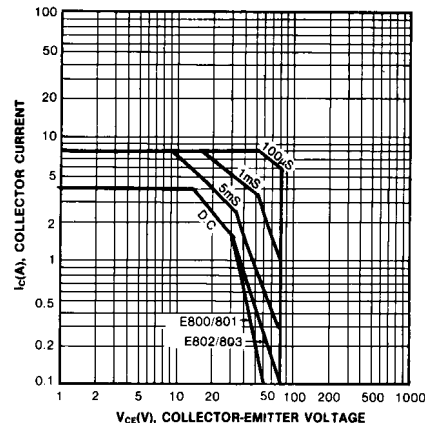
COLLECTOR OUTPUT CAPACITANCE



POWER DERATING



SAFE OPERATING AREA



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