

DARLINGTON TRANSISTOR

FEATURES

- Complementary to MPSA77.

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CES}	60	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current	I_C	500	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C



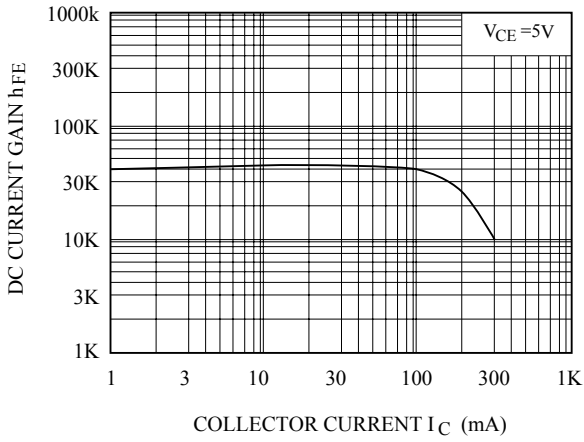
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CE}=50V, I_E=0$	-	-	100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=10V, I_B=0$	-	-	100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_C=100\mu A, I_E=0$	60	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60	-	-	V
DC Current Gain	$h_{FE(1)}$ *	$V_{CE}=5V, I_C=10mA$	10K	-	-	
	$h_{FE(2)}$ *	$V_{CE}=5V, I_C=100mA$	10K	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$ *	$I_C=100mA, I_B=0.1mA$	-	-	1.5	V
Base-Emitter Voltage	V_{BE} *	$V_{CE}=5V, I_C=100mA$	-	-	2	V

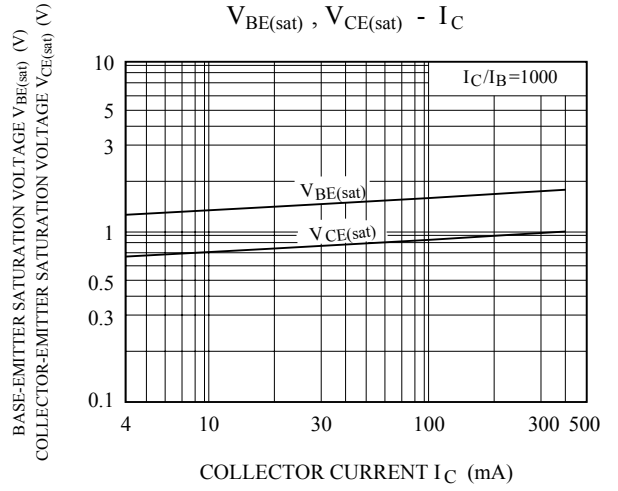
* Pulse Test : $PW \leq 300\mu S$, Duty Cycle $\leq 2\%$.

MPSA27

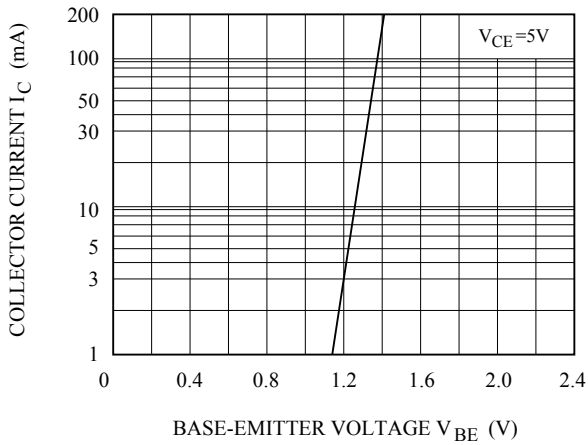
$h_{FE} - I_C$



$V_{BE(sat)}, V_{CE(sat)} - I_C$



$I_C - V_{BE}$



SAFE OPERATING AREA

