

### 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



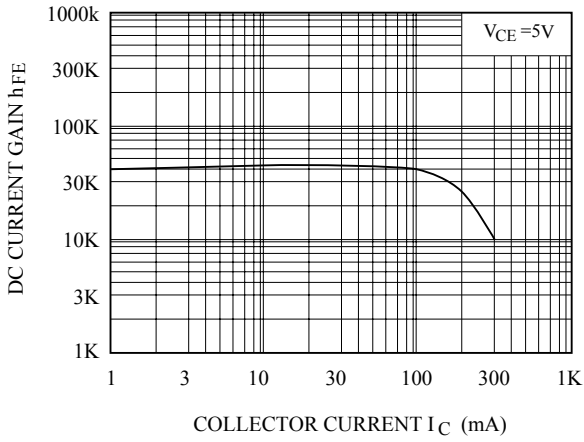
### ELECTRICAL CHARACTERISTICS (Ta=25°C)

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

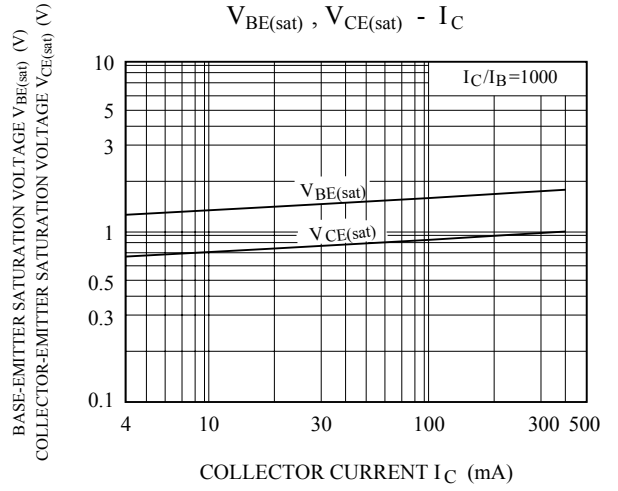
\* Pulse Test :  $PW \leq 300\mu S$ , Duty Cycle  $\leq 2\%$ .

# MPSA27

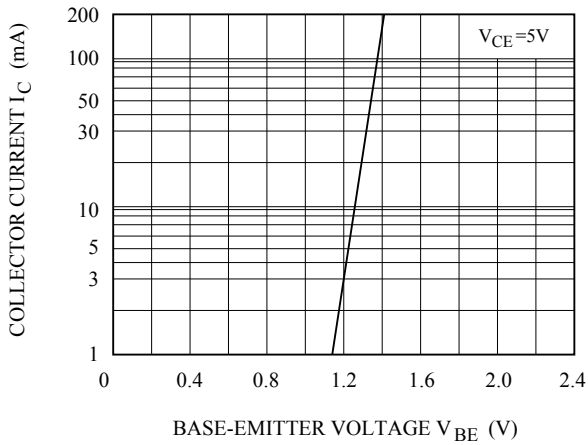
$h_{FE} - I_C$



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



$I_C - V_{BE}$



SAFE OPERATING AREA

