

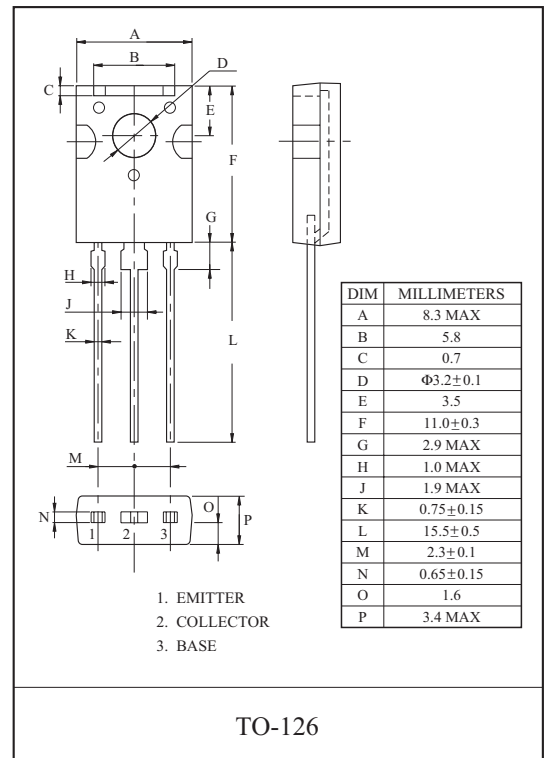
GENERAL PURPOSE APPLICATION.

FEATURES

- High Current. (Max. : 1.5A)
- DC Current Gain : $h_{FE}=40$ Min. @ $I_C=0.15A$
- Complementary to BD140.

MAXIMUM RATING (Ta=25)

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Collector-Base Voltage	V_{CBO}	100	V	
Collector-Emitter Voltage	V_{CEO}	80	V	
Emitter-Base Voltage	V_{EBO}	5	V	
Collector Current	I_C	1.5	A	
Base Current	I_B	0.5	A	
Collector Power Dissipation	P_C	Ta=25	1.25	W
		Tc=25	10	
Junction Temperature	T_j	150		
Storage Temperature Range	T_{stg}	-55 150		

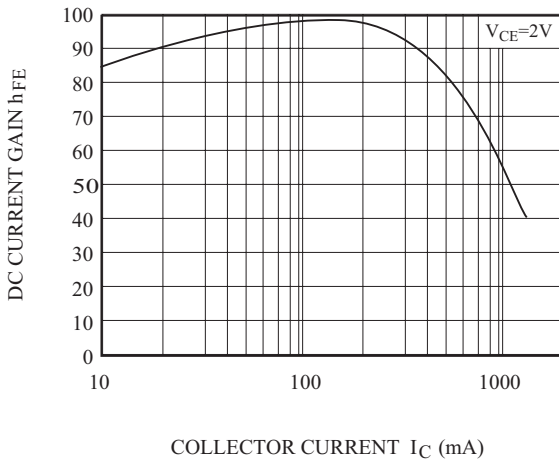


ELECTRICAL CHARACTERISTICS (Ta=25)

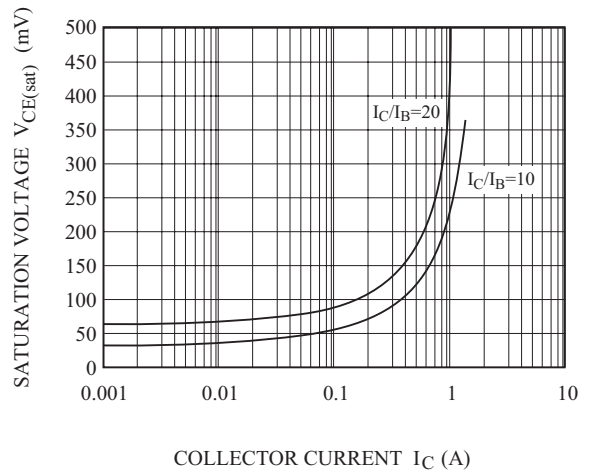
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=30V, I_E=0$	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	-	-	10	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=30mA, I_B=0$	80	-	-	V
DC Current Gain	$h_{FE} (1)$	$I_C=5mA, V_{CE}=2V$	25	-	-	
	$h_{FE} (2)$	$I_C=150mA, V_{CE}=2V$	40	-	250	
	$h_{FE} (3)$	$I_C=500mA, V_{CE}=2V$	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$	-	-	0.5	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=2V, I_C=50mA$	-	-	1.0	V

BD139

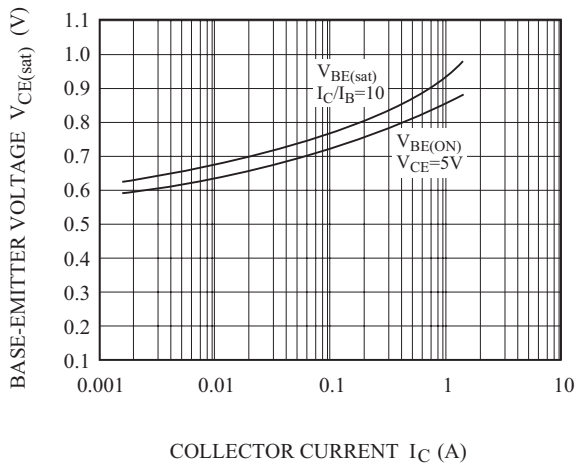
$h_{FE} - I_C$



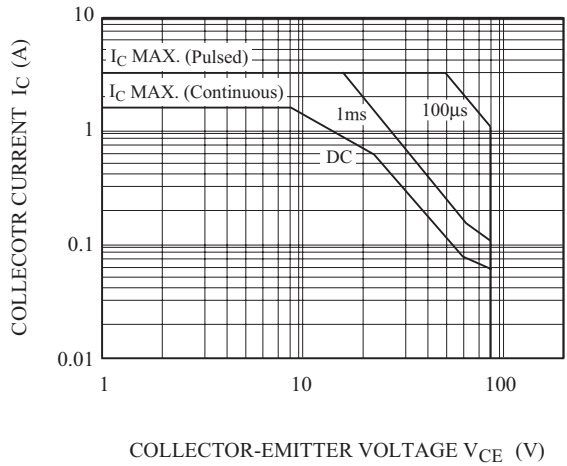
$V_{CE(sat)} - I_C$



$V_{CE(sat)} - I_C$



SAFE OPERATING AREA



$P_C - T_c$

