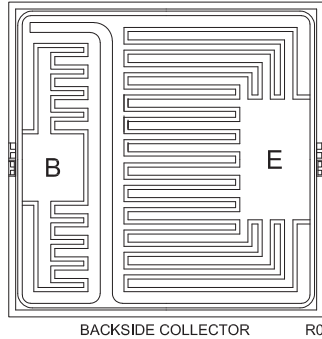


CP527

PNP - Darlington Transistor Die

10 Amp, 80 Volt

The CP527 die is a silicon PNP Darlington power transistor designed for high gain amplifier applications.



MECHANICAL SPECIFICATIONS:

Die Size	110 x 110 MILS
Die Thickness	10.6 MILS
Base Bonding Pad Size	21 x 24 MILS
Emitter Bonding Pad Size	24 x 42 MILS
Top Side Metalization	Al - 20,000Å
Back Side Metalization	Ni/Ag - 2,000Å/10,000Å
Scribe Alley Width	4.3 mils
Wafer Diameter	4 INCHES
Gross Die Per Wafer	700

MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CB0}	80	V
Collector-Emitter Voltage	V_{CE0}	80	V
Emitter-Base Voltage	V_{EB0}	5.0	V
Continuous Collector Current	I_C	10	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CE0}	$V_{CE}=80\text{V}$		1.0	mA
I_{EB0}	$V_{EB}=5.0\text{V}$		10	mA
BV_{CB0}	$I_C=100\mu\text{A}$	80		V
BV_{CE0}	$I_C=3.0\text{mA}$	80		V
BV_{EB0}	$I_E=5.0\text{mA}$	5.0		V
$V_{CE(SAT)}$	$I_C=5.0\text{A}, I_B=10\text{mA}$		2.0	V
$V_{BE(ON)}$	$V_{CE}=3.0\text{V}, I_C=5.0\text{A}$		2.8	V
h_{FE}	$V_{CE}=3.0\text{V}, I_C=5.0\text{A}$	1.0K	20K	
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		200	pF

CP527

Typical Electrical Characteristics

