

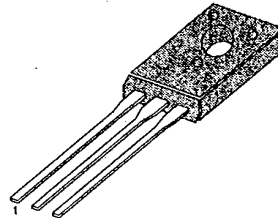
MJE210**PNP EPITAXIAL SILICON TRANSISTOR**

COLLECTOR-EMITTER SUSTAINING VOLTAGE
 LOW COLLECTOR-EMITTER
 SATURATION VOLTAGE
 HIGH CURRENT GAIN-BANDWIDTH
 PRODUCT-MIN $f_T=65\text{MHz}$ @ $I_C=-100\text{mA}$

Complementary to MJE200

T-33-17

TO-18



1. Emitter 2. Collector 3. Base

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	-40	V
Collector-Emitter Voltage	V_{CE0}	-25	V
Emitter-Base Voltage	V_{EB0}	-8	V
Collector Current	I_C	-5	A
Collector Dissipation	P_C	15	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65~150	$^\circ\text{C}$

3

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

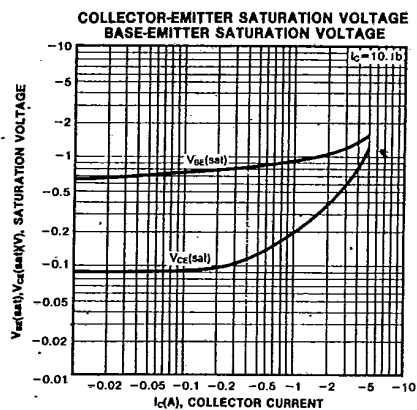
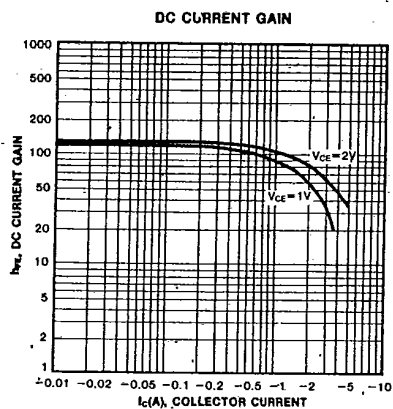
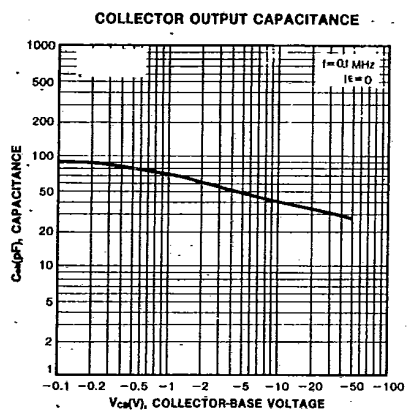
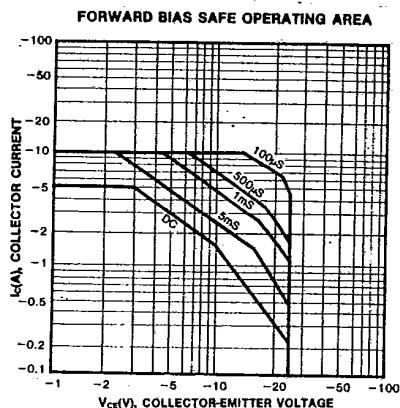
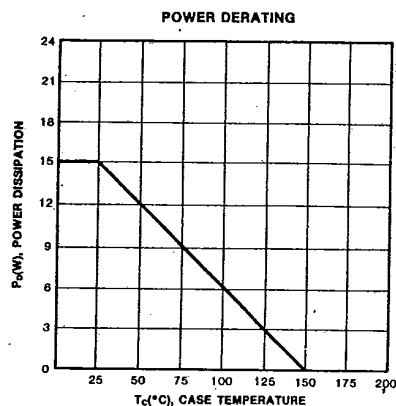
Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CE0(SUS)}$	$I_C=-10\text{mA}$, $I_B=0$	-25		V
Collector Cutoff Current	I_{CB0}	$V_{CB}=-40\text{V}$, $I_E=0$		-100	nA
Emitter Cutoff Current	I_{EB0}	$V_{CB}=-40\text{V}$, $I_E=0$, $T_J=125^\circ\text{C}$		-100	μA
DC Current Gain	h_{FE}	$V_{BE}=-8\text{V}$, $I_C=0$		-100	nA
		$V_{CE}=-1\text{V}$, $I_C=-500\text{mA}$	70		
		$V_{CE}=-1\text{V}$, $I_C=-2\text{A}$	45	180	
		$V_{CE}=-2\text{V}$, $I_C=-5\text{A}$	10		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}$, $I_B=-50\text{mA}$		-0.3	V
		$I_C=-2\text{A}$, $I_B=-200\text{mA}$		-0.75	V
		$I_C=-5\text{A}$, $I_B=-1\text{A}$		-1.8	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-5\text{A}$, $I_B=-1\text{A}$		-2.5	V
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=-1\text{V}$, $I_C=-2\text{A}$		-1.6	V
Current Gain-Bandwidth Product	f_T	$V_{CE}=-10\text{V}$, $I_C=-100\text{mA}$ $f=10\text{MHz}$	65		MHz
Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $I_E=0$, $f=0.1\text{MHz}$		120	pF



MJE210

PNP EPITAXIAL SILICON TRANSISTOR

T-33-17



MJE340**NPN EPITAXIAL SILICON TRANSISTOR**

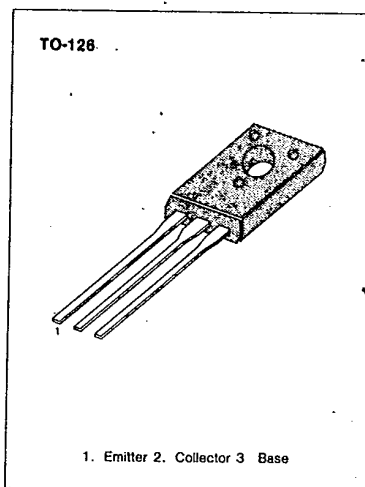
T-33-09

**HIGH COLLECTOR-EMITTER
SUSTAINING VOLTAGE
HIGH VOLTAGE GENERAL PURPOSE
APPLICATIONS
SUITABLE FOR TRANSFORMER**

Complementary to MJE350

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	300	V
Collector-Emitter Voltage	V_{CE0}	300	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	20	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65~150	$^\circ\text{C}$



3

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

Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CE0(sus)}$	$I_C = 1\text{mA}, I_B = 0$	300		V
Collector Cutoff Current	I_{CB0}	$V_{CB} = 300\text{V}, I_E = 0$		100	μA
Emitter Cutoff Current	I_{EB0}	$V_{BE} = 3\text{V}, I_C = 0$		100	μA
DC Current Gain	h_{FE}	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$	30	240	

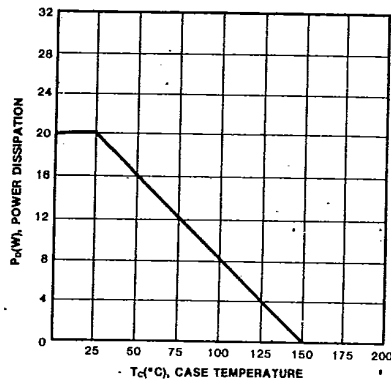
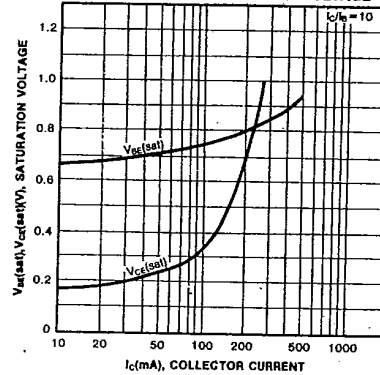


MJE340

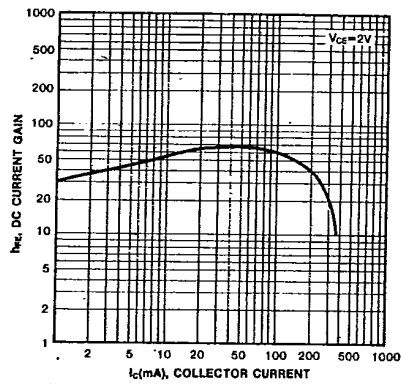
NPN EPITAXIAL SILICON TRANSISTOR

T-33-09

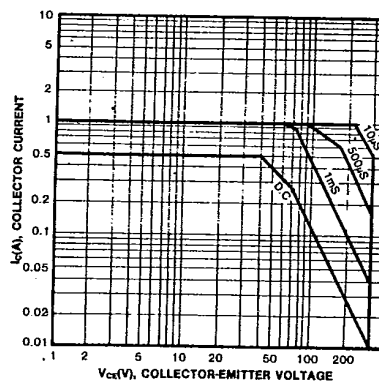
POWER DERATING

COLLECTOR-EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE

DC CURRENT GAIN



FORWARD BIAS SAFE OPERATING AREA



MJE350**PNP EPITAXIAL SILICON TRANSISTOR**

T-33-19

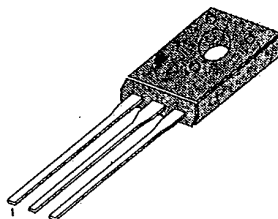
**HIGH COLLECTOR-EMITTER
SUSTAINING VOLTAGE
HIGH VOLTAGE GENERAL PURPOSE
APPLICATIONS
SUITABLE FOR TRANSFORMER**

Complementary to MJE340

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	-300	V
Collector-Emitter Voltage	V_{CE0}	-300	V
Emitter-Base Voltage	V_{EB0}	-5	V
Collector Current	I_C	-500	mA
Collector Dissipation	P_C	20	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65~150	$^\circ\text{C}$

TO-18



1. Emitter 2. Collector 3. Base.

3

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

Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CE0(sus)}$	$I_C = -1\text{mA}, I_B = 0$	-300		V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -300\text{V}, I_E = 0$		-100	μA
Emitter Cutoff Current	I_{EBO}	$V_{BE} = -3\text{V}, I_C = 0$		-100	μA
DC Current Gain	h_{FE}	$V_{CE} = -10\text{V}, I_C = -50\text{mA}$	30	240	



MJE350

PNP EPITAXIAL SILICON TRANSISTOR

T-33-19

