MJE702STU Datasheet

DiGi Electronics Part Number	MJE702STU-DG
Manufacturer	onsemi
Manufacturer Product Number	MJE702STU
Description	TRANS PNP DARL 80V 4A TO126-3
Detailed Description	Bipolar (BJT) Transistor PNP - Darlington 80 V 4 A 4 0 W Through Hole TO-126-3

https://www.DiGi-Electronics.com

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
MJE702STU	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP - Darlington	4 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
80 V	2.5V @ 30mA, 1.5A
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100µA	750 @ 1.5A, 3V
Power - Max:	Frequency - Transition:
40 W	-
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-225AA, TO-126-3	TO-126-3
Base Product Number:	
MJE702	

Environmental & Export classification

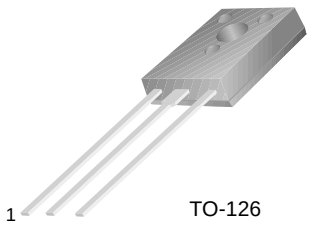
Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.29.0095

FAIRCHILD SEMICONDUCTOR™

MJE700/701/702/703

Monolithic Construction With Built-in Base-Emitter Resistors

- High DC Current Gain : h_{FE}= 750 (Min.) @ I_C= -1.5 and -2.0A DC
- Complement to MJE800/801/802/803



TO-126

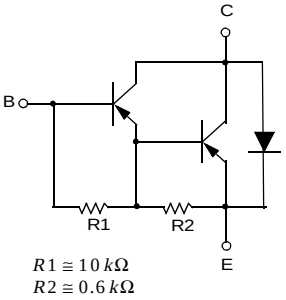
1. Emitter 2.Collector 3.Base

PNP Epitaxial Silicon Darlington Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Sym-bol	Parameter	Value	Units
V_{CBO}	Collector- Base Voltage : MJE700/701	- 60	V
	: MJE702/703	- 80	V
V_{CEO}	Collector-Emitter Voltage : MJE700/701	- 60	V
	: MJE702/703	- 80	V
V_{EBO}	Emitter- Base Voltage	- 5	V
I_C	Collector Current	- 4	A
I_B	Base Current	- 0.1	A
P_C	Collector Dissipation (T_C=25°C)	40	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Equivalent Circuit



$R1 \cong 10\,k\Omega$
$R2 \cong 0.6\,k\Omega$

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage				
	: MJE700/701	I_C = - 10mA, I_B = 0	-60		V
	: MJE702/703		-80		V
I_{CEO}	Collector Cut-off Current				
	: MJE700/701	V_{CE} = - 60V, I_B = 0		-100	μA
	: MJE702/703	V_{CE} = - 80V, I_B = 0		-100	μA
I_{CBO}	Collector Cut-off Current	V_{CB} = Rated BV_{CEO}, I_E = 0		-100	μA
		V_{CB} = Rated BV_{CEO}, I_E = 0 T_C = 100°C		-500	μA
I_{EBO}	Emitter Cut-off Current	V_{BE} = - 5V, I_C = 0		-2	mA
h_{FE}	DC Current Gain				
	: MJE700/702	V_{CE} = - 3V, I_C = - 1.5A	750		
	: MJE701/703	V_{CE} = - 3V, I_C = - 2A	750		
	: ALL DEVICES	V_{CE} = - 3V, I_C = - 4A	100		
V_{CE}(sat)	Collector-Emitter Saturation Voltage				
	: MJE700/702	I_C = - 1.5A, I_B = - 30mA		-2.5	V
	: MJE701/703	I_C = - 2A, I_B = - 40mA		-2.8	V
	: ALL DEVICES	I_C = - 4A, I_B = - 40mA		-3	V
V_{BE}(on)	Base-Emitter On Voltage				
	: MJE700/702	V_{CE} = - 3V, I_C = - 1.5A		-1.2	V
	: MJE701/703	V_{CE} = - 3V, I_C = - 2A		-2.5	V
	: ALL DEVICES	V_{CE} = - 3V, I_C = - 4A		-3	V

Typical Characteristics

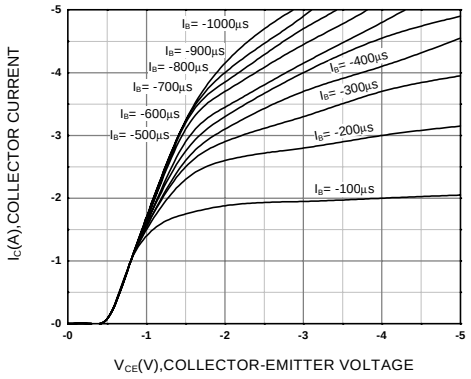


Figure 1. Static Characteristic

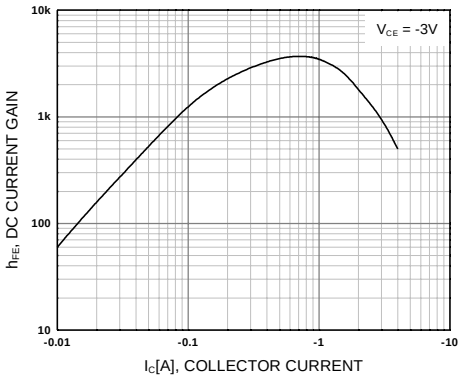


Figure 2. DC current Gain

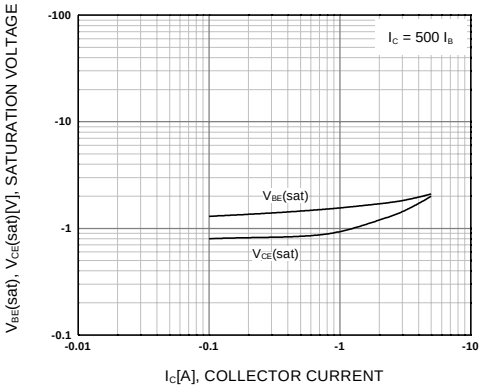


Figure 3. Collector-Emitter Saturation Voltage Base-Emitter Saturation Voltage

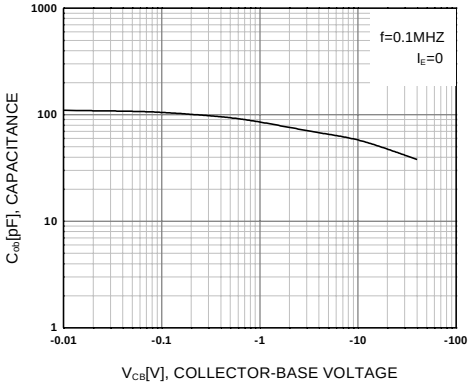


Figure 4. Collector Output Capacitance

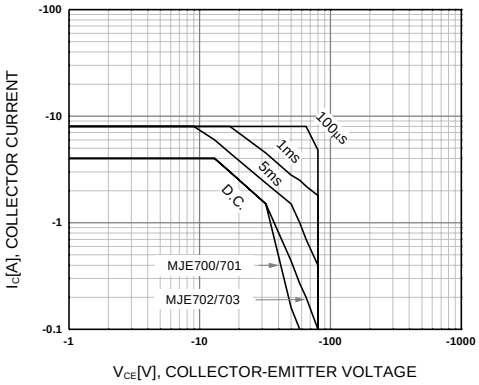


Figure 5. Safe Operating Area

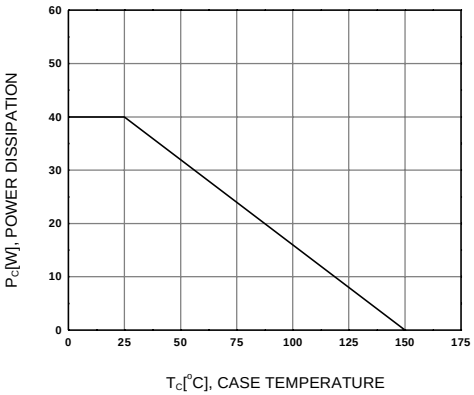
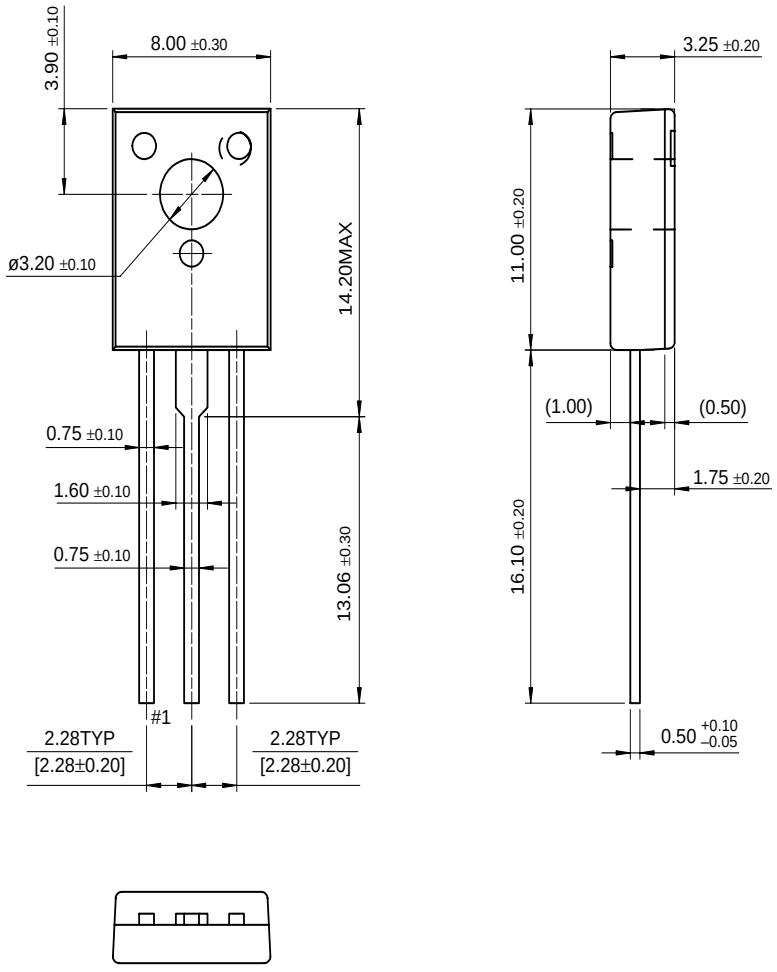


Figure 6. Power Derating

Package Demensions

TO-126



Dimensions in Millimeters

TRADEMARKS

The following are registered and unregistered trademarks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACEx™
Bottomless™
CoolFET™
CROSSVOLT™
DOME™
E^2CMOS™
EnSigna™
FACT™
FACT Quiet Series™
FAST®
FASTr™
GlobalOptoisolator™
GTO™
HiSeC™
ISOPLANAR™
MICROWIRE™
OPTOLOGIC™
OPTOPLANAR™
PACMAN™
POP™
PowerTrench®
QFET™
QS™
QT Optoelectronics™
Quiet Series™
LILENT SWITCHER®
SMART START™
SuperSOT™-3
SuperSOT™-6
SuperSOT™-8
SyncFET™
TinyLogic™
VCX™
UHC™

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR INTERNATIONAL.

As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, or (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

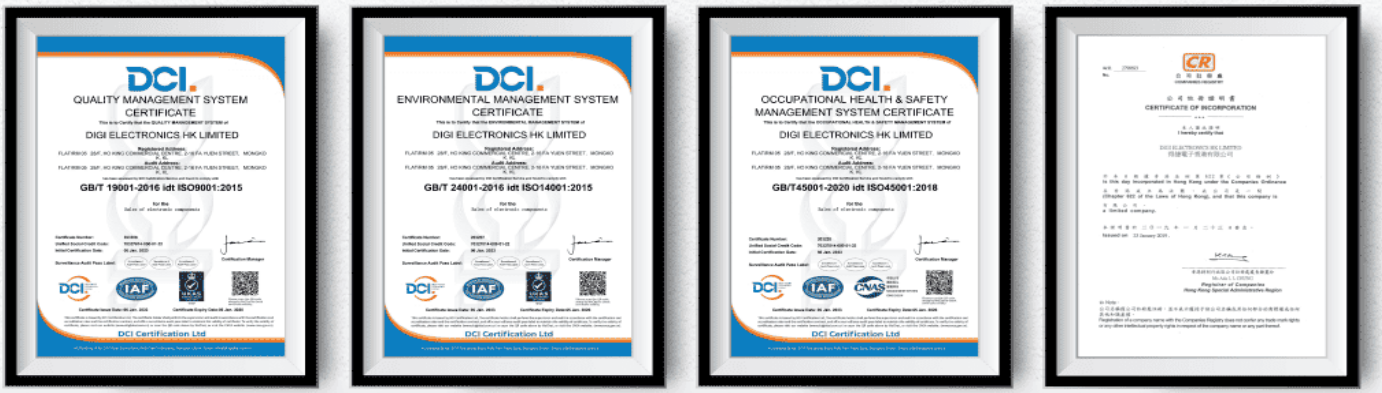
PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we striciy control the quality of products and services. Welcome your RFQ to Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.