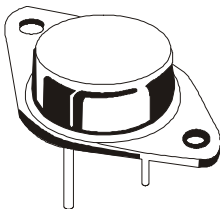
SILICON PLANAR POWER TRANSISTORS

2N3055 NPN
MJ2955 PNP



TO-3
Metal Can Package

General Purpose Switching and Amplifier Applications

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V_{CBO}	100	V
Collector Emitter Voltage	V_{CEO}	60	V
Collector Emitter Voltage(R_{BE}=100W)	V_{CER}	70	V
Emitter Base Voltage	V_{EBO}	7	V
Collector Current Continuous	I_C	15	A
Base Current	I_B	7	A
Power Dissipation @ T_c=25ºC Derate Above 25ºC	P_{tot}	115 0.657	W W/ºC
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +200	ºC

THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	1.52	ºC/W

ELECTRICAL CHARACTERISTICS (T_C=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Collector Emitter Sustaing Voltage	$V_{CEO(sus)}$*	I_C=200mA, I_B=0	60		V
Collector Emitter Sustaing Voltage	$V_{CER(sus)}$*	I_C=200mA, R_{BE}=100Ω	70		V
Collector Cut off Current	I_{CEX}	V_{CE}=100V, V_{BE}=(off)=1.5V T_c=150ºC V_{CE}=100V, V_{BE}=(off)=1.5V		1.0 5.0	mA
Collector Cut off Current	I_{CEO}	V_{CE}=30V, I_B=0		0.7	mA
Emitter Cut off Current	I_{EBO}	V_{BE}=7V, I_C=0		5.0	mA
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$ *	I_C=4A, I_B=400mA I_C=10A, I_B=3.3A		1.1 3.0	V
Base Emitter on Voltage	$V_{BE(on)}$ *	I_C=4A, V_{CE}=4V		1.5	V
DC Current Gain	h_{FE}*	I_C=4A, V_{CE}=4V I_C=10A, V_{CE}=4V	20 5	70	

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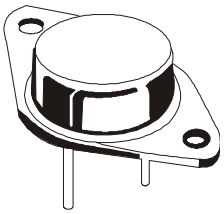


TO-3
Metal Can Package

ELECTRICAL CHARACTERISTICS (T_C=25ºC unless specified otherwise)

Second Breakdown

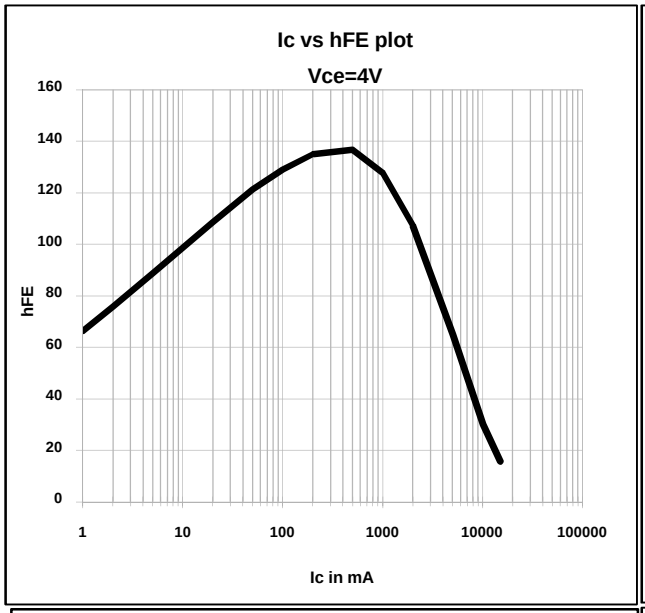
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Second Breakdown Collector Current with Base Forward Biased	I_S/b	V_{CE}=40V,t=1.0 s,Nonrepetitive	2.87		A

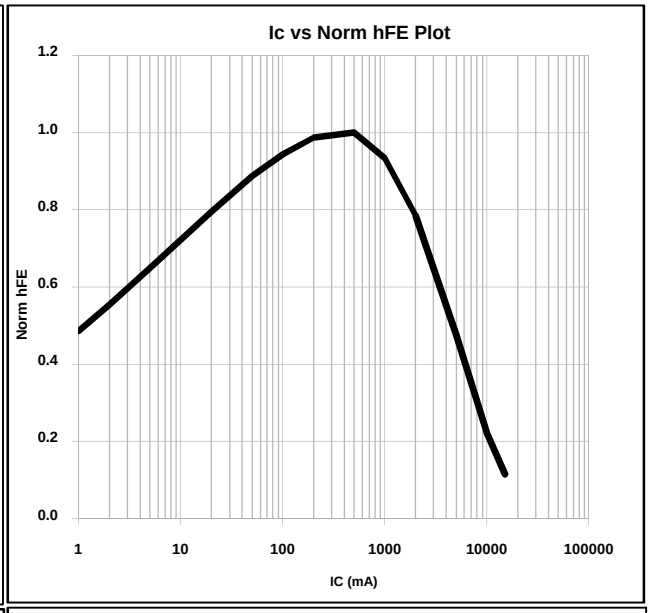
Dynamic Characteristics

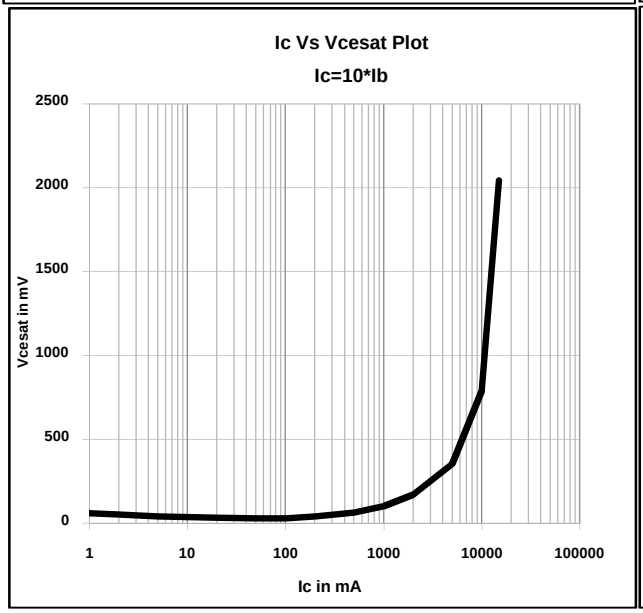
Current Gain - Bandwidth Product	f_T	I_C=0.5A, V_{CE}=10V, f=1MHz	2.5		MHz
Small Signal Current Gain	h_{fe}	I_C=1A, V_{CE}=4V, f=1KHz	15	120	
Small Signal Current Gain Cutoff Frequency	$^fh_{fe}$	I_C=1A, V_{CE}=4V, f=1KHz	10		KHz

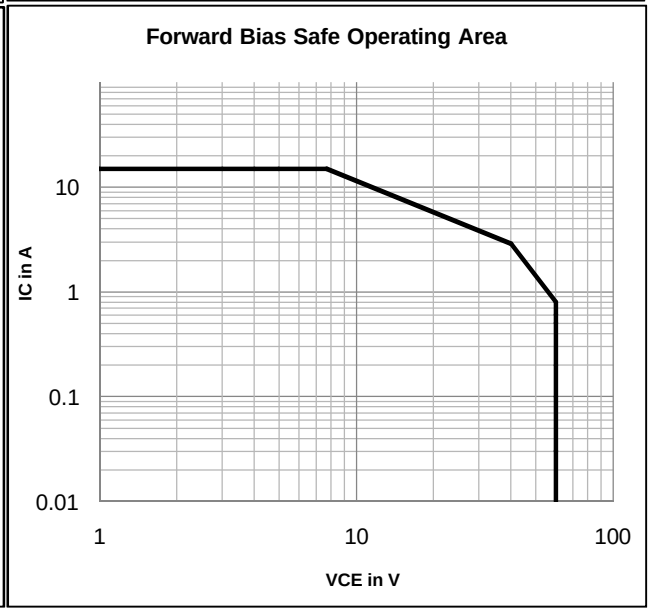
***Pulse Test: Pulse Width ≤300μs, Duty Cycle ≤2%**

CHARACTERISTICS PLOTS

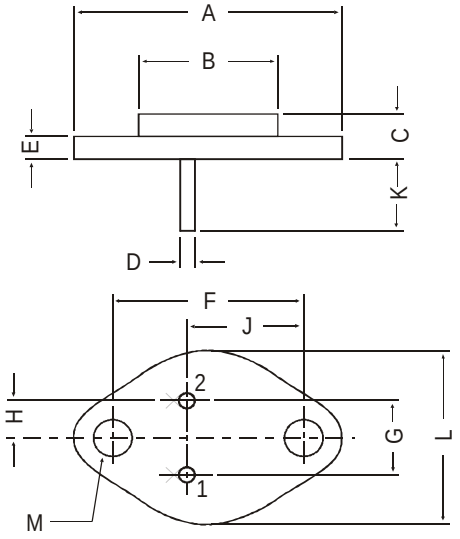






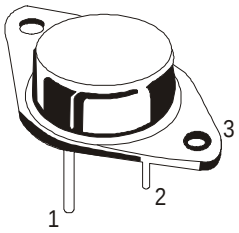


TO-3 Metal Can Package



All dimensions in mm.

DIM	MIN.	MAX.
A	—	39.37
B	—	22.22
C	6.35	8.50
D	0.96	1.09
E	—	1.77
F	29.90	30.40
G	10.69	11.18
H	5.20	5.72
J	16.64	17.15
K	11.15	12.25
L	—	26.67
M	3.84	4.19



PIN CONFIGURATION
1. BASE
2. EMITTER
3. COLLECTOR

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-3	100 pcs/pkt	1.3 kg/100 pcs	12.5" x 8" x 1.8"	0.1K	17" x 11.5" x 21"	2K	27.5 kgs

Notes

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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