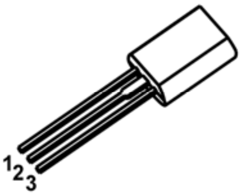
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-92MOD Plastic-Encapsulate Transistors

TO – 92MOD

1. EMITTER
2. COLLECTOR
3. BASE



2SD789 TRANSISTOR (NPN)

FEATURES

- Low Frequency Power Amplifier
- Complementary Pair with 2SB740

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	1	A
P_C	Collector Power Dissipation	900	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	139	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA,I_E=0	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=80V,I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=6V,I_C=0			0.2	μA
DC current gain	h_{FE}	V_{CE}=2V, I_C=100mA	100		800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=1A,I_B=100mA			0.3	V
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0, f=1MHz		20		pF
Transition frequency	f_T	V_{CE}=2V,I_C=10mA		100		MHz

CLASSIFICATION OF h_{FE}

RANK	B	C	D	E
RANGE	100-200	160-320	250-500	400-800

A,Dec,2010