



Complementary Silicon Power Ttransistors

MJD31C / 32C

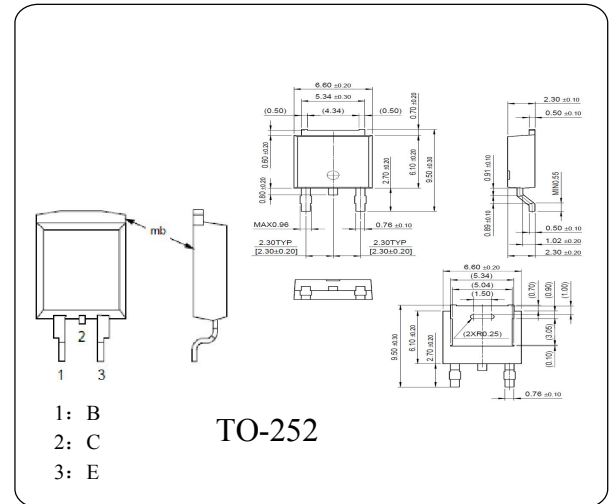


DESCRIPTION

It is intended for use in power amplifier and switching applications.

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	± 100	V
Collector-Emitter Voltage	V_{CEO}	± 100	V
Emitter-Base Voltage	V_{EBO}	± 6.0	V
Collector Current	I_C	± 3.0	A
Base Current	I_B	± 1.0	A
Total Dissipation at	P_{tot}	20	W
Max. Operating Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~150	°C



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I_{CEO}	$V_{CB} = \pm 100V, I_E = 0$	—	—	± 10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = \pm 5.0V, I_C = 0$	—	—	± 10	μA
Collector-Emitter Sustaining Voltage	V_{CEO}	$I_C = \pm 10mA, I_B = 0$	± 100	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE} = \pm 4.0V, I_C = \pm 1.0A$	30	—	—	
	$h_{FE(2)}$	$V_{CE} = \pm 4.0V, I_C = \pm 3.0A$	10	—	60	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = \pm 3.0A, I_B = \pm 375mA$	—	—	± 1.2	V
Base-Emitter on Voltage	$V_{BE(on)}$	$V_{CE} = \pm 4.0V, I_C = \pm 3.0A$	—	—	± 1.8	V
Current Gain Bandwidth Product	f_T	$V_{CE} = \pm 10V, I_C = \pm 500mA$	3.0	—	—	MHz