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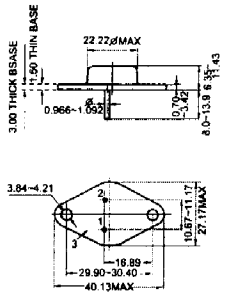
MJ15015 Silicon Epitaxial Planar Transistor

GENERAL DESCRIPTION

Silicon NPN high frequency, high power transistors in a metal envelope, primarily for use in audio and general purpose



TO-3

QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	TYP	MAX	UNIT
V_{CESM}	Collector-emitter voltage peak value	V_{BE} = 0V	-	200	V
V_{CEO}	Collector-emitter voltage (open base)		-	120	V
I_C	Collector current (DC)		-	15	A
I_{CM}	Collector current peak value		-		A
P_{tot}	Total power dissipation	$T_{mb} \leqslant 25℃$	-	180	W
V_{CEsat}	Collector-emitter saturation voltage	I_C = 4.0A; I_B = 0.4A	-	1.5	V
V_F	Diode forward voltage	I_F = 4.0A	1.5	2.0	V
t_f	Fall time	I_C=4A,I_{B1}=-I_{B2}=0.4A,V_{CC}=30V		6.0	μs

LIMITING VALUES

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V_{CESM}	Collector-emitter voltage peak value	V_{BE} = 0V	-	200	V
V_{CEO}	Collector-emitter voltage (open base)		-	120	V
V_{EBO}	Emitter-base oltage (open colloctor)			5	V
I_C	Collector current (DC)		-	15	A
I_B	Base current (DC)		-	7	A
P_{tot}	Total power dissipation	Tmb≤25℃	-	180	W
T_{stg}	Storage temperature		-55	150	℃
T_j	Junction temperature		-	150	℃

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	TYP	MAX	UNIT
I_{CBO}	Collector-base cut-off current	V_{BE} = 0V; V_{CE} = $V_{CESMmax}$	-	0.2	mA
I_{EBO}	Emitter-base cut-off current	V_{BE} = 0V; V_{CE} = $V_{CESMmax}$	-	0.2	mA
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	T_j = 125℃	120		V
V_{CEsat}	Collector-emitter saturation voltages	I_C = 4.5A; I_B = 1.6A	-	1.5	V
h_{FE}	DC current gain	I_C = 100mA; V_{CE} = 5V	30	150	
f_T	Transition frequency at f = 5MHz	I_C = 0.1A; V_{CE} = 5V	3	-	MHz
C_c	Collector capacitance at f = 1MHz	V_{CB} = 10V		600-	pF
t_{on}	On times	I_C=4A,I_{B1}=-I_{B2}=0.4A,V_{CC}=30V		4.5	us
t_s	Tum-off storage time	I_C=4A,I_{B1}=-I_{B2}=0.4A,V_{CC}=30V		3.0	us
t_f	Fall time	I_C=4A,I_B1=-I_{B2}=0.4A,V_{CC}=30V		6.0	us