



BU407

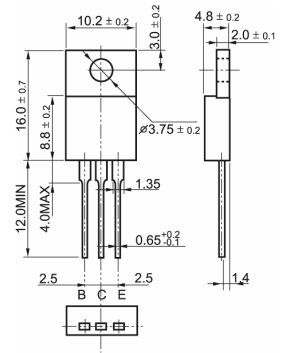
SILICON EPITAXIAL PLANNAR TRANSISTOR

GENERAL DESCRIPTION

High frequency, high power transistors in a plastic envelope, primarily for use in audio and general purpose



TO-220



QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V_{CESM}	Collector-emitter voltage peak value	$V_{BE} = 0V$		330	V
V_{CEO}	Collector-emitter voltage (open base)			150	V
I_C	Collector current (DC)			7	A
I_{CM}	Collector current peak value			15	A
P_{tot}	Total power dissipation	$T_{mb} \leq 25^\circ C$		60	W
V_{CEsat}	Collector-emitter saturation voltage	$I_C = 5.0A; I_B = 0.5A$		1.0	V
V_F	Diode forward voltage				V
t_f	Fall time	$I_C=5A, -I_{B(end)}=0.5A, V_{CC}=60V$		0.75	μs

LIMITING VALUES

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V_{CESM}	Collector-emitter voltage peak value	$V_{BE} = 0V$	-	330	V
V_{CEO}	Collector-emitter voltage (open base)		-	150	V
V_{EBO}	Emitter-base voltage (open collector)			5	V
I_C	Collector current (DC)		-	7	A
I_B	Base current (DC)		-	4	A
P_{tot}	Total power dissipation	$T_{mb} \leq 25^\circ C$	-	60	W
T_{sta}	Storage temperature		-55	150	$^\circ C$
T_j	Junction temperature		-	150	$^\circ C$

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
I_{CBO}	Collector-base cut-off current	$V_{CB}=400V$		5.0	mA
I_{EBO}	Emitter-base cut-off current	$V_{EB}=5V$		1.0	mA
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA$	150		V
V_{CEsat}	Collector-emitter saturation voltages	$I_C = 5.0A; I_B = 0.5A$		1.0	V
h_{FE}	DC current gain	$I_C = 2.0A; V_{CE} = 5V$	30		
f_T	Transition frequency at $f = 5MHz$	$I_C = 0.5A; V_{CE} = 10V$	10		MHz
C_c	Collector capacitance at $f = 1MHz$	$V_{CB} = 10V$			pF
t_{on}	On times	$I_C=5A, -I_{B(end)}=0.5A, V_{CC}=60V$			us
t_s	Turn-off storage time	$I_C=5A, -I_{B(end)}=0.5A, V_{CC}=60V$			us
t_f	Fall time	$I_C=5A, -I_{B(end)}=0.5A, V_{CC}=60V$		0.75	us