

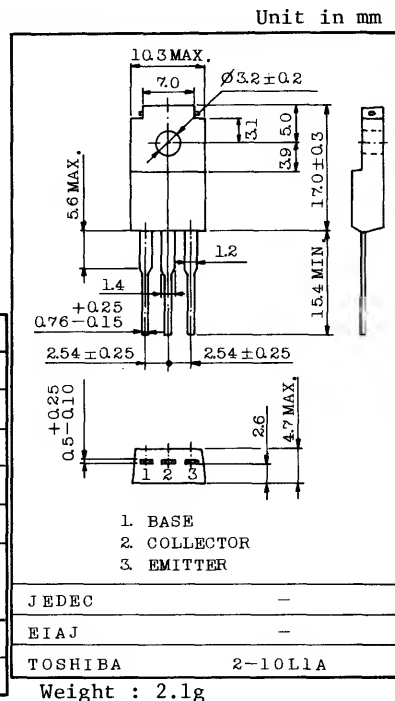
HIGH CURRENT SWITCHING APPLICATIONS.
POWER AMPLIFIER APPLICATIONS.

FEATURES:

- High Collector Current : $I_C = -7A$
- Low Collector Saturation Voltage
: $V_{CE(sat)} = -0.5V(\text{Max.})$ at $I_C = -4A$
- Complementary to 2SD1411

MAXIMUM RATINGS ($T_a = 25^\circ C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-100	V
Collector-Emitter Voltage		V_{CEO}	-80	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-7	A
Base Current		I_B	-1	A
Collector Power Dissipation	$T_a = 25^\circ C$	P_C	2.0	W
	$T_c = 25^\circ C$		30	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55 ~ 150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTICS		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = -100V, I_E = 0$	-	-	-5	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = -5V, I_C = 0$	-	-	-5	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C = -50mA, I_B = 0$	-80	-	-	V
DC Current Gain		$h_{FE(1)}$ (Note)	$V_{CE} = -1V, I_C = -1A$	70	-	240	
		$h_{FE(2)}$	$V_{CE} = -1V, I_C = 4A$	30	-	-	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	$I_C = -4A, I_B = -0.4A$	-	-0.3	-0.5	V
	Base-Emitter	$V_{BE(sat)}$	$I_C = -4A, I_B = -0.4A$	-	-0.9	-1.4	
Transition Frequency		f_T	$V_{CE} = -4V, I_C = -1A$	-	10	-	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	250	-	pF
Switching Time	Turn-on Time	t_{on}	INPUT I_{B1} I_{B2} OUTPUT I_C 20μs 10Ω $V_{CC} = -30V$ DUTY CYCLE $\leq 1\%$	-	0.4	-	μs
	Storage Time	t_{stg}		-	2.5	-	
	Fall Time	t_f		-	0.5	-	

Note : $h_{FE(1)}$ Classification O : 70 ~ 140. Y : 120 ~ 240

