

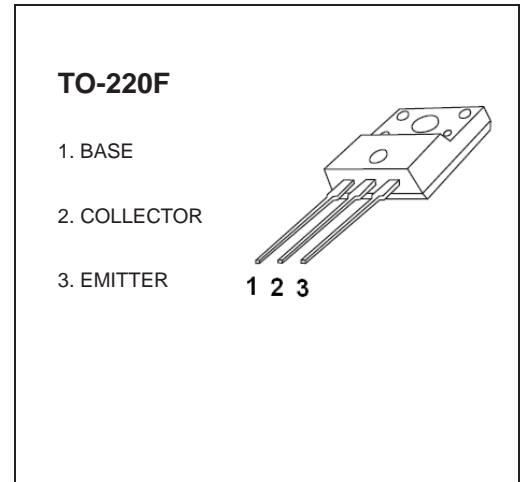
FTD2058 TRANSISTOR (NPN)

FEATURES

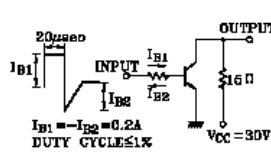
- Low $V_{CE(sat)}$: $V_{CE(sat)}=1.0V(\text{Max.}) (I_C/I_B=2A/0.2A)$
- Complementary to FTB1366

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current -Continuous	3	A
P_C	Collector power dissipation	2	W
T_J	Junction temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-150	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7\text{V}, I_C=0$			100	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=5\text{V}, I_C=0.5\text{A}$	60		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{A}, I_B=0.2\text{A}$			1	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE}=5\text{V}, I_C=0.5\text{A}$			1	V
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=0.5\text{A}$		3		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		35		pF
Switching time	Turn-on Time	t_{on}	 <p style="font-size: small;"> $I_{B1} = -I_{B2} = 0.2\text{A}$ DUTY CYCLE $\leq 1\%$ $V_{CC} = 30\text{V}$ </p>		0.65	us
	Storage Time	t_{stg}			1.3	
	Fall Time	t_f			0.65	

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	60-120	100-200

