"BIG IDEAS IN BIG POWER"

PowerTech

1200 AMPERES

MT-5006
MT-5007

POWERBLOCK POWER SYSTEM

MAXIMUM RATINGS	SYMBOL	MT-5006	MT-5007
Collector-Base Voltage	V_{CBO}	60V	80V
Collector-Emitter Voltage	$V_{CE(sus)}$	60V	80V
Emitter-Base Voltage	V_{EBO}	10V	10V
Peak Collector Current*	I_C	1200A	1200A
D.C. Collector Current	I_C	750A	750A
Power Dissipation @ 25°C	P_D	2100W	2100W
Power Dissipation @ 100°C	P_D	1200W	1200W
Thermal Resistance	θ_{J-C}	.08° C/W	.08° C/W
Operating Junction Temp. Range		-65 to 200° C	-65 to 200° C
Storage Temperature Range		-65 to 150° C	-65 to 150° C
Package		PPS-1200	PPS-1200

ELECTRICAL CHARACTERISTICS 25°C

TEST	SYMBOL	LIMITS				UNIT	TEST CONDITIONS
		MT-5006		MT-5007			
		MIN.	MAX.	MIN.	MAX.		
D.C. Current Gain*	h_{FE}	400	–	400	–	–	I_C=750A, V_{CE}=4V
D.C. Current Gain*	h_{FE}	100	–	100	–	–	I_C=1200A, V_{CE}=4V
Collector Saturation Voltage*	$V_{CE(sat)}$	–	2.0	–	2.0	V	I_C=750A, I_B=2.0A
Collector Saturation Voltage*	$V_{CE(sat)}$	–	2.5	–	2.5	V	I_C=1200A, I_B=12A
Base Emitter Voltage*	V_{BE}	–	2.5	–	2.5	V	I_C=750A, V_{CE}=4V
Base Emitter Voltage*	V_{BE}	–	3.0	–	3.0	V	I_C=1200A, V_{CE}=4V
Collector-Emitter Voltage* ø	$V_{CE(sus)}$	60	–	80	–	V	I_C=200mA,
Collector Cutoff Current*	I_{CES}	–	20	–	–	mA	V_{CB}=60V, R_{BE}=0
Collector Cutoff Current**	I_{CES}	–	–	–	20	mA	V_{CB}=80V, R_{BE}=0
Emitter Cutoff Current ***	I_{EBO}	–	10	–	10	mA	V_{EB}=10V, I_{CB}=0

* < 300μ sec. DC < 2%

** Base #1 connected to Base #2

*** Base #2 open circuit

ø $R_{B_1B_2}$=100 ohms, R_{B_2E}= 10 ohms

INTERNAL CONNECTION: DARLINGTON