

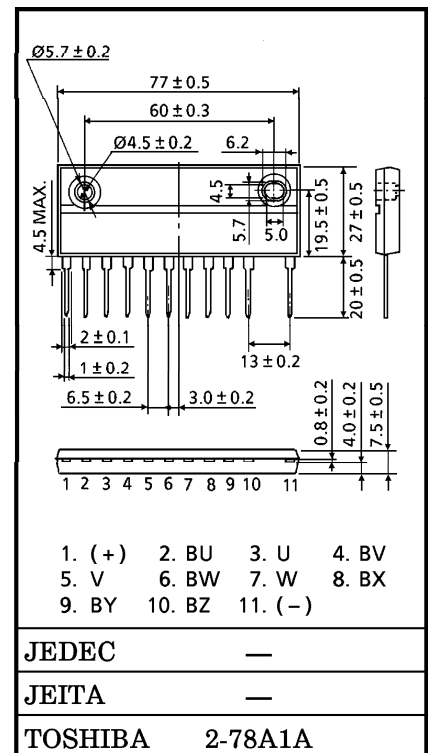
MP 6501A

HIGH POWER SWITCHING APPLICATIONS

MOTOR CONTROL APPLICATIONS

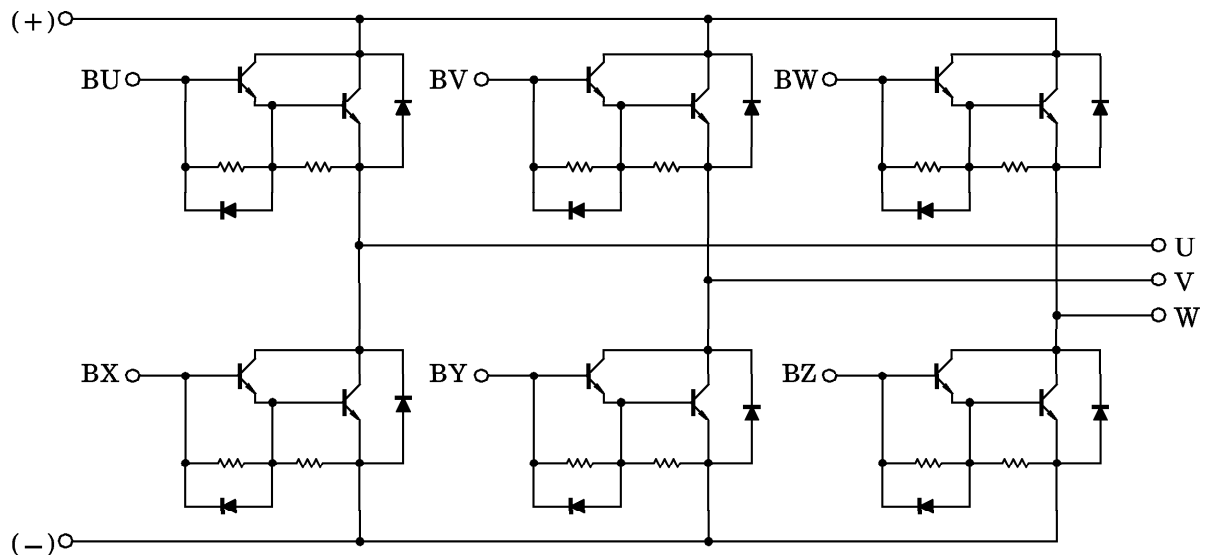
- The Electrodes are is Isolated from Case.
- 6 Darlington Transistor Built Into in 1 Package
- High Input Impedance
- High DC Current Gain
: $h_{FE}=100$ (Min.) ($I_C=15A$)
- Low Saturation Voltage
: $V_{CE(sat)}=2.1V$ (Max.) ($I_C=15A$)

Unit in mm



Weight : 44g

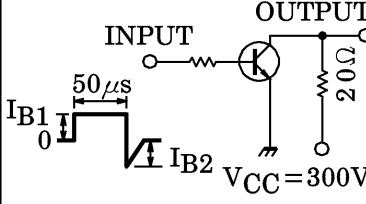
EQUIVALENT CIRCUIT

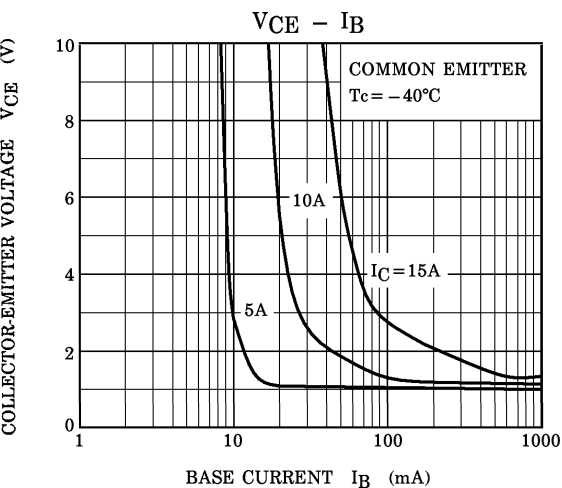
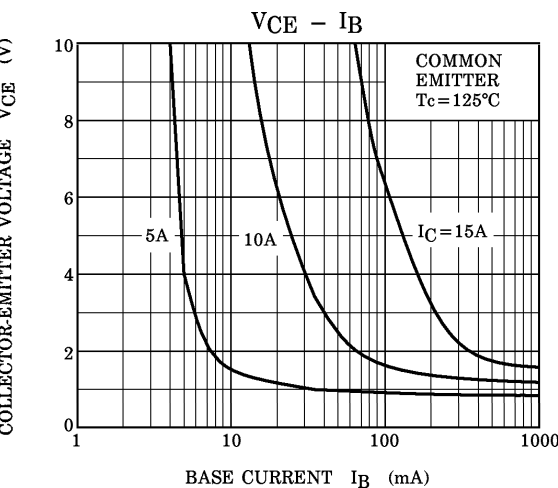
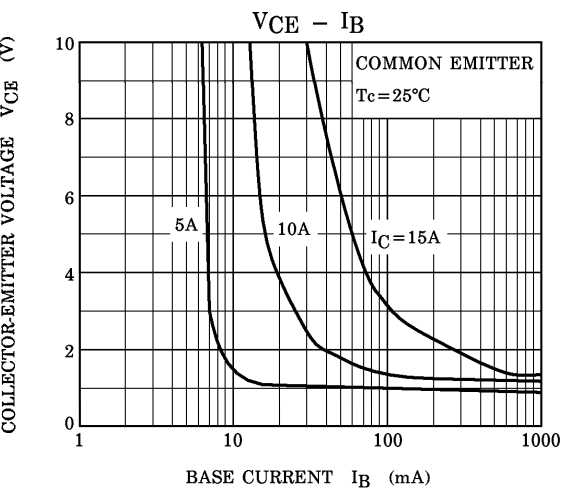
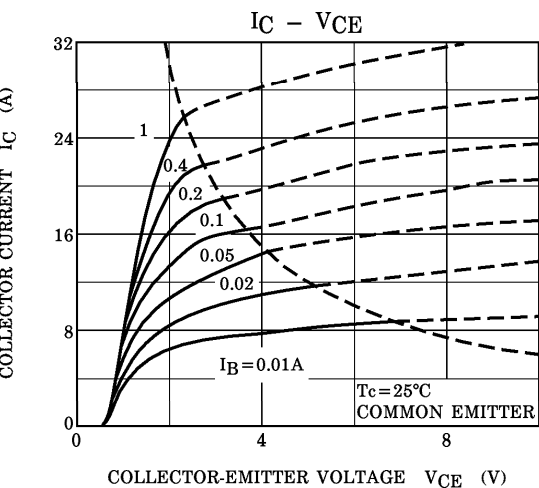
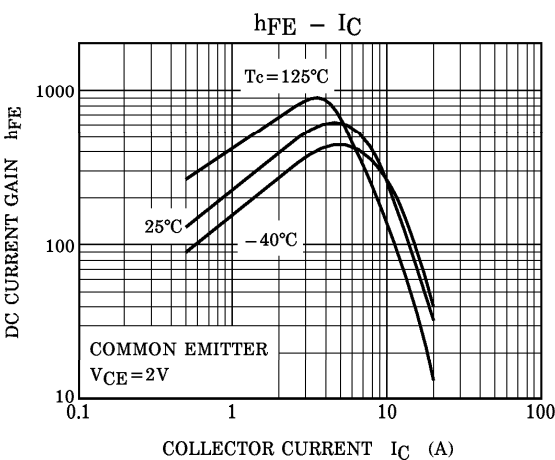
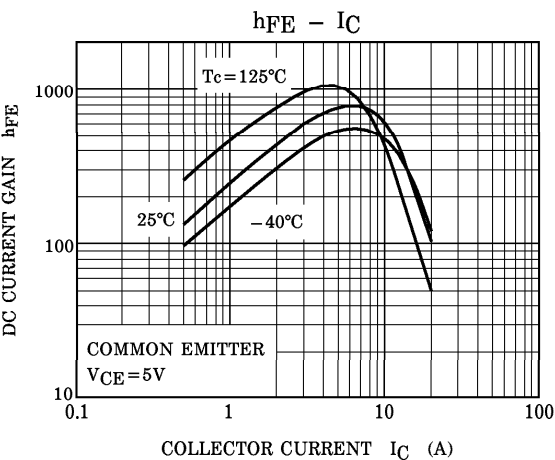


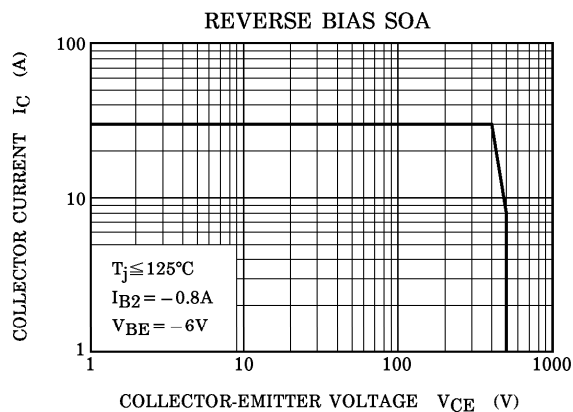
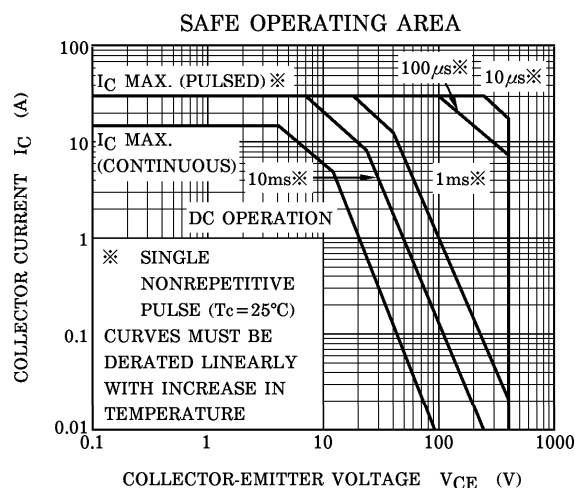
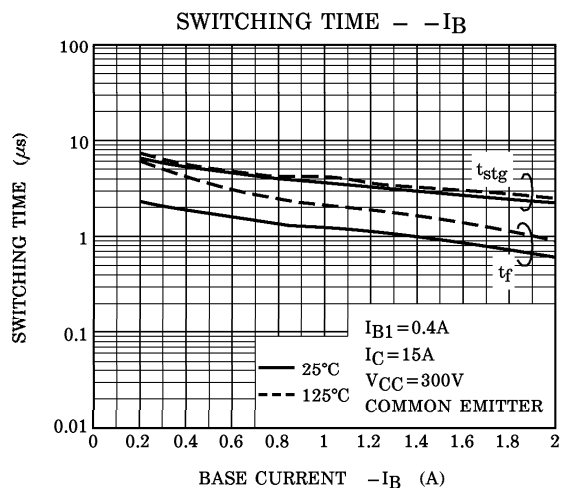
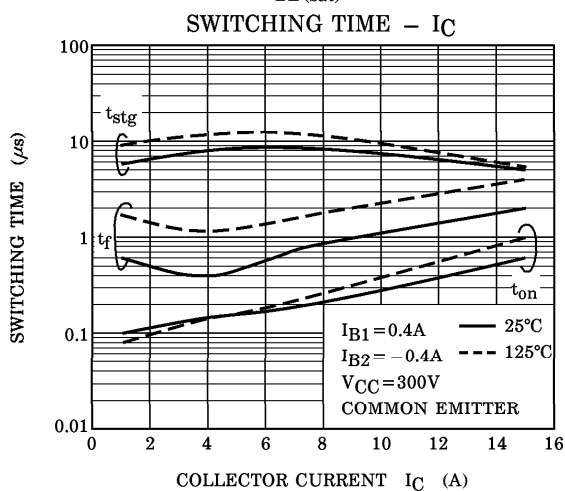
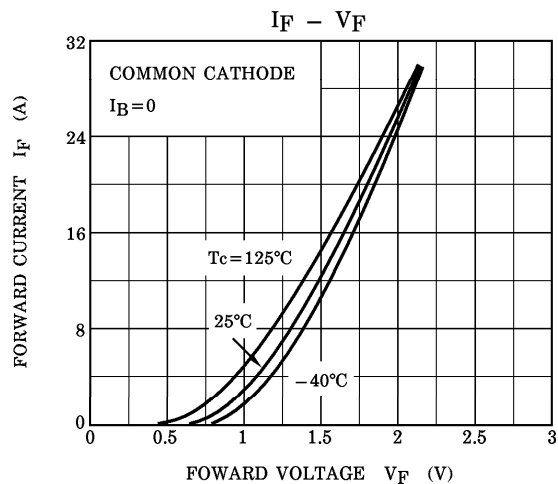
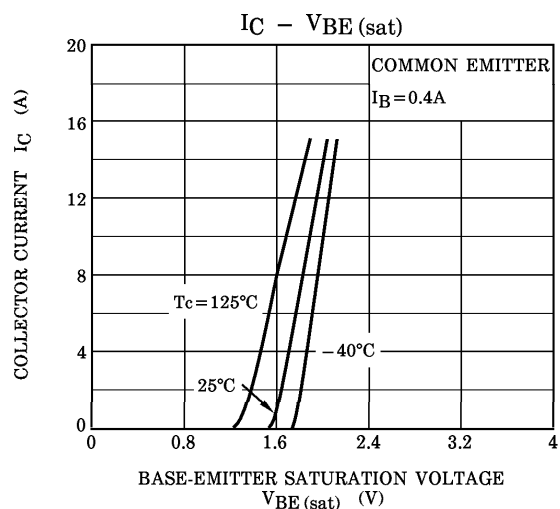
MAXIMUM RATINGS (Ta = 25°C)

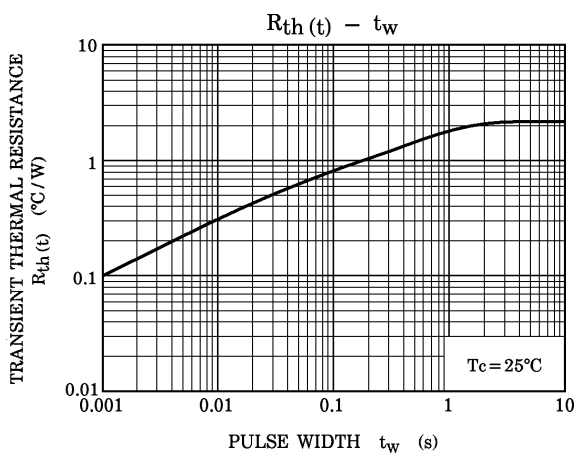
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V _{CB0}	500	V
Collector-Emitter Sustaining Voltage		V _{CEX} (SUS)	500	V
		V _{CEO} (SUS)	400	
Emitter-Base Voltage		V _{EBO}	6	V
Collector Current	DC	I _C	15	A
	1ms	I _{CP}	30	
Forward Current	DC	I _F	15	A
	1ms	I _{FM}	30	
Base Current		I _B	1.0	A
Collector Power Dissipation		P _C	60	W
Junction Temperature		T _j	150	°C
Storage Temperature Range		T _{stg}	-40~125	°C
Isolation Voltage		V _{Isol}	2500 (AC 1Min.)	V
Screw Torque		—	1.5	N·m

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-Off Current		I _{CBO}	V _{CB} = 500V, I _E = 0	—	—	1.0	mA
Emitter Cut-Off Current		I _{EBO}	V _{BE} = 6V, I _C = 0	—	—	100	mA
Collector-Emitter Sustaining Voltage		V _{CEO} (SUS)	I _C = 0.5A, L = 40mH	400	—	—	V
DC Current Gain		h _{FE}	V _{CE} = 5V, I _C = 15A	100	—	—	
Collector-Emitter Saturation Voltage		V _{CE} (sat)	I _C = 15A, I _B = 0.4A	—	1.3	2.1	V
Base-Emitter Saturation Voltage		V _{BE} (sat)	I _C = 15A, I _B = 0.4A	—	2.0	2.5	V
Switching Time	Turn-On Time	t _{on}	 INPUT OUTPUT 50μs I_{B1} I_{B2} V_{CC} = 300V 20Ω I_{B1} = -I_{B2} = 0.4A DUTY CYCLE = 0.5%	—	0.6	1.0	μs
	Storage Time	t _{stg}		—	5	12	
	Fall Time	t _f		—	1.5	3.0	
Forward Voltage		V _F	I _F = 15A, I _B = 0	—	1.5	2.0	V
Reverse Recovery Time		t _{rr}	I _F = 15A, V _{BE} = -2A di / dt = 60A / μs	—	—	0.7	μs
Thermal Resistance		R _{th} (j-c)	—	—	—	2.08	°C / W







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