

COMPLEMENTARY SILICON PLASTIC POWER TRANSISTORS
ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

	TIP41	41A	41B	41C	
	TIP42	42A	42B	42C	
COLLECTOR-BASE VOLTAGE	40	60	80	100	V
COLLECTOR-EMITTER VOLTAGE	40	60	80	100	V
EMITTER-BASE VOLTAGE			5.0		V
COLLECTOR CURRENT (DC)			6.0		A
(PEAK)			10.0		A
TOTAL POWER DISSIPATION ($T_c=25^\circ\text{C}$)			65		W
($T_a=25^\circ\text{C}$)			1.75		W
JUNCTION TEMPERATURE			150		$^\circ\text{C}$
STORAGE TEMPERATURE			-55 to +150		$^\circ\text{C}$

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

		MIN.	MAX.	
COLLECTOR-EMITTER VOLTAGE	V_{CEO}			
($I_C=30\text{mA}$, $I_B=0$)	TIP41, TIP42	40		V
	TIP41A, TIP42A	60		V
	TIP41B, TIP42B	80		V
	TIP41C, TIP42C	100		V
COLLECTOR CUTOFF CURRENT	I_{CEO}			
($V_{CE}=30\text{V}$, $I_B=0$)	TIP41, 41A, 42, 42A		0.7	mA
($V_{CE}=60\text{V}$, $I_B=0$)	TIP41B, 41C, 42B, 41C		0.7	mA
COLLECTOR CUTOFF CURRENT	I_{CES}			
($V_{CE}=40\text{V}$, $V_{EB}=0$)	TIP41, TIP42		0.4	mA
($V_{CE}=60\text{V}$, $V_{EB}=0$)	TIP41A, TIP42A		0.4	mA
($V_{CE}=80\text{V}$, $V_{EB}=0$)	TIP41B, TIP42B		0.4	mA
($V_{CE}=100\text{V}$, $V_{EB}=0$)	TIP41C, TIP42C		0.4	mA
EMITTER CUTOFF CURRENT	I_{EBO}			
($V_{BE}=5\text{V}$, $I_C=0$)			1.0	mA
DC CURRENT GAIN	h_{FE}			
($V_{CE}=4\text{V}$, $I_C=0.3\text{A}$)		30		
($V_{CE}=4\text{V}$, $I_C=3.0\text{A}$)		20	100	
COLLECTOR-EMITTER SATURATION	$V_{CE(SAT)}$			
($I_C=6\text{A}$, $I_B=0.6\text{A}$)			1.8	V
BASE-EMITTER ON VOLTAGE	$V_{BE(ON)}$			
($V_{CE}=4\text{V}$, $I_C=6\text{A}$)			2.0	V
GAIN-BAND WIDTH PRODUCT	f_T			
($V_{CE}=10\text{V}$, $I_C=0.5\text{A}$)		3		MHz

OUTLINE DIMENSION


