



Complementary Power Darlington TR

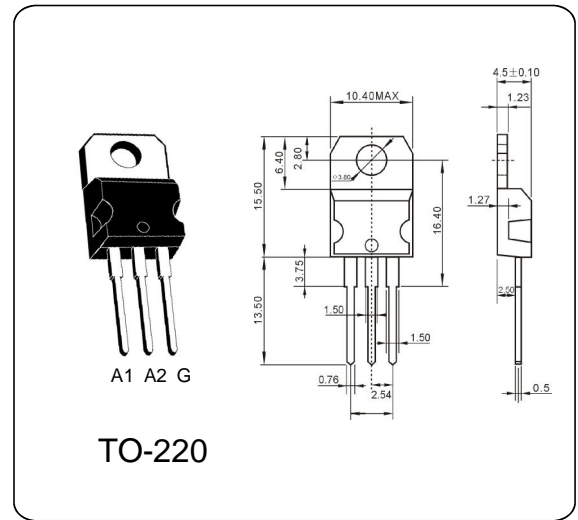
BDW93C / BDW94C

DESCRIPTION

It is intended for use in power amplifier and switching applications.

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	100	V
Collector Current	I_C	12	A
Base Current	I_B	0.2	A
Total Dissipation at	P_{tot}	80	W
Max. Operating Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~150	°C



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I_{CBO}	$V_{CE}=100V, I_E=0$			0.1	mA
Collector Cut-off Current	I_{CEO}	$V_{CE}=100V, I_B=0$			1.0	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$			2.0	mA
Collector-Emitter Sustaining Voltage	V_{CEO}	$I_C=100mA, I_B=0$	100			V
DC Current Gain	h_{FE}	$V_{CE}=3V, I_C=3A$	1000		20000	
		$V_{CE}=3V, I_C=5A$	750		20000	
		$V_{CE}=3V, I_C=10A$	100		20000	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A, I_B=20mA$			2.0	V
		$I_C=10A, I_B=100mA$			3.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=5A, I_B=20mA$			2.5	V
		$I_C=10A, I_B=100mA$			4.0	V
Parallel Diode Forward Voltage	V_F	$I_F=5A$		1.3		V
		$I_F=10A$		1.8		V