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2N1722
2N1722A
2N1723
2N1724
2N1724A
2N1725

Triple Diffused Power Transistors

These NPN silicon triple diffused power transistors can be used to advantage in power amplifiers and switching applications where high voltage and low saturation resistance are required. These transistors are designed to meet all of the electrical and mechanical requirements of Mil S19500B. The 2N1722 and 2N1724 types are available to either JAN or JAN TX specifications from stock.

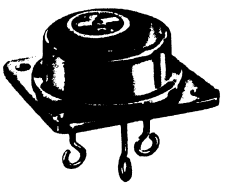
FEATURES

- 15 MH_Z typical Gain-Bandwidth — ft
- High Sustaining Voltage
- Very Low Leakage Currents
- 50 Watts Dissipation at 100°C
- TO-61, TO-53 Packages

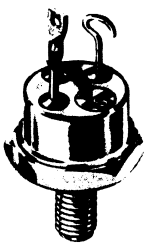
APPLICATIONS

- High power, High frequency inverters
- Converters
- High Power Linear Amplifiers
- High Speedswitching Type Regulated Power Supplier
- RF Power Amplification Up to 10 MH_Z

TO-53



TO-61



1. Emitter
2. Base
3. Collector

ABSOLUTE MAXIMUM RATINGS AT 25°C CASE TEMPERATURE (unless otherwise noted)

	JAN2N1724 JAN2N1722	2N1724 2N1722	2N1724A 2N1722A	2N1725 2N1723	UNITS
Collector — Base Voltage	175	120	180	120	Volts
Collector — Emitter Voltage	80	80	120	80	Volts
Emitter — Base Voltage	10	10	10	10	Volts
Collector Current, Continuous	5	5	5	5	Amps
Collector Current, Peak		7.5	7.5		Amps
Emitter Current, Continuous			6	5	Amps
Base Current, Continuous			1		Amps
Safe Continuous Operating Region	← SEE FIGURE →				
Collector Power Dissipation 25°C Free Air Temperature	3	3	3	3	Watts
Collector Power Dissipation 100°C Case Temperature	50	50	50	50	Watts
Operating Collector Junction Temperature	175	175	175	175	°C
Storage Temperature Range	← −65 TO 200 →				°C

ELECTRICAL CHARACTERISTICS AT 25°C CASE TEMP (unless otherwise noted)

CHARACTERISTIC	TO-61 PACKAGE TO-53 PACKAGE TEST CONDITION			JAN2N1724 JAN2N1722 MIN	JAN2N1724 JAN2N1722 MAX	2N1724 2N1722 MIN	2N1724 2N1722 MAX	2N1724A 2N1722A MIN	2N1724A 2N1722A MAX	2N1725 2N1723 MIN	2N1725 2N1723 MAX	UNITS
BV_{CEO} (sus) *	$I_C = 200mA$	$I_B = 0$		80		80		120		80		Volts
BV_{EBO}	$I_E = 10mA$	$I_C = 0$		10								Volts
I_{EBO}	$V_{EB} = 3V$	$I_C = 0$					10				0.5	mA
	$V_{EB} = 7V$	$I_C = 0$			400							μA
	$V_{EB} = 9V$	$I_C = 0$							0.5		0.5	mA
	$V_{EB} = 10V$	$I_C = 0$					10		10		10	mA
I_{CES}	$V_{CE} = 30V$	$V_{BE} = 0$									0.1	mA
	$V_{CE} = 60V$	$V_{BE} = 0$			0.3		1		0.1		1	mA
	$V_{CE} = 60V$	$V_{BE} = 0$	$T_C = 150°C$		1.5		2				2	mA
	$V_{CE} = 100V$	$V_{BE} = 0$							1.0			mA
	$V_{CE} = 100V$	$V_{BE} = 0$	$T_C = 150°C$						2.0			mA
	$V_{CE} = 120V$	$V_{BE} = 0$	$T_C = 150°C$		10		10				10	mA
	$V_{CE} = 180V$	$V_{BE} = 0$	$T_C = 150°C$						10			mA
I_{CBO}	$V_{CB} = 175V$	$I_E = 0$			5							mA
	$V_{CB} = 3V$	$I_E = 0$					0.5		0.1		0.1	mA
h_{FE} *	$V_{CE} = 15V$	$I_C = 0.1A$		30		20		30		50		
*	$V_{CE} = 15V$	$I_C = 2A$		30	90	20	90	30	90	50	150	
*	$V_{CE} = 5$	$I_C = 5A$						20				
*	$V_{CE} = 15V$	$I_C = 2A$	$T_C = -55°C$	18		12		18		25		
V_{BE} *	$I_C = 2A$	$I_B = 0.2A$			1.2		2.0		1.2		2.0	Volts
*	$I_C = 5A$	$I_B = 0.5A$							2.0			Volts
V_{CE} (sat) *	$I_C = 2A$	$I_B = 0.2A$			0.6		1.0		0.6		1.0	Volts
*	$I_C = 5A$	$I_B = 0.5A$							1.5			Volts
*	$I_C = 2A$	$I_B = 0.2A$	$T_C = -55°C$						0.8			Volts
V_{EB} (floating potential)	$V_{CB} = 180V$	$I_E = 0$							1.0			Volts
h_{fe}	$V_{CE} = 15V$	$I_C = 0.5A$	$f = 10MH_Z$	1.0		1.0		1.0		1.0		
C_{ob}	$V_{CB} = 15V$	$I_E = 0$	$f = 1MH_Z$		550		550		550		550	pf