Microsemi LAWRENCE

TECHNICAL DATA

NPN SILICON HIGH POWER TRANSISTOR

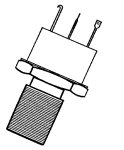
Qualified per MIL-PRF-19500/262

Devices		*Qualified Level*
2N1722	**2N1724**	**JAN JANTX**

MAXIMUM RATINGS

Ratings		Symbol	Value	Units
Collector-Emitter Voltage		V_{CEO}	80	Vdc
Collector-Base Voltage		V_{CBO}	175	Vdc
Emitter-Base Voltage		V_{EBO}	10	Vdc
Collector Current		I_C	5.0	Adc
Total Power Dissipation	@ T_A = +25^{0}C(1) @ T_C = +100^{0}C (2)	P_T	3.0 50	W W
Temperature Range:	Operating Storage Junction	$T_{OP,}$ T_{stg}	175 -65 to +200	^{0}C

1) Derate linearly 20 mW/^{0}C for T_A between +25^{0}C and +175^{0}C
2) Derate linearly 666 mW/^{0}C for T_C between +100^{0}C and +175^{0}C



TO-61*
2N1724

TO-53*
2N1722

*See Appendix A for Package Outline

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage I_C = 200 mAdc	$V_{(BR)CEO}$	80		Vdc
Emitter-Base Breakdown Voltage I_E = 10 mAdc	$V_{(BR)EBO}$	10		Vdc
Collector-Emitter Cutoff Current V_{CE} = 60 Vdc	I_{CES}		300	µAdc
Collector-Base Cutoff Current V_{CB} = 175 Vdc	I_{CBO}		5.0	mAdc
Emitter-Base Cutoff Current V_{EB} = 7.0 Vdc	I_{EBO}		400	µAdc

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
ON CHARACTERISTICS				
Forward-Current Transfer Ratio I_C = 2.0 Adc, V_{CE} = 15 Vdc I_C = 5.0 Adc, V_{CE} = 15 Vdc I_C = 100 mAdc, V_{CE} = 15 Vdc	h_{FE}	30 15 30	120	
Collector-Emitter Saturation Voltage I_C = 2.0 Adc, I_B = 200 mAdc	$V_{CE(sat)}$		0.6	Vdc
Base-Emitter Saturation Voltage I_C = 2.0 Adc, I_B = 200 mVdc	$V_{BE(sat)}$		1.2	Vdc
DYNAMIC CHARACTERISTICS				
Magnitude of Common Emitter Small-Signal Short-Circuit Forward Current Transfer Ratio I_C = 500 mAdc, V_{CE} = 15 Vdc; f = 10 MHz	$\lvert h_{fe} \rvert$	1.0	5.0	
Output Capacitance V_{CB} = 15 Vdc, I_E = 0, 100 kHz ≤ f ≤ 1.0 MHz	C_{obo}		550	pF