NEW ENGLAND SEMICONDUCTOR

TECHNICAL DATA

2N1483 JAN, JTX
2N1484 JAN, JTX
2N1485 JAN, JTX
2N1486 JAN, JTX

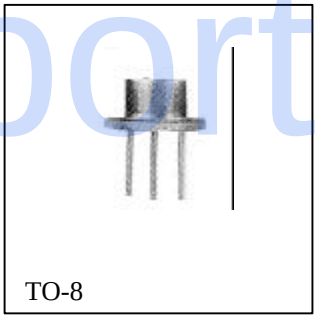
MIL-PRF QPL DEVICES

Processed per MIL-PRF-19500/180

NPN SILICON MEDIUM-POWER TRANSISTOR

MAXIMUM RATINGS

Ratings	Symbol	2N1483 2N1485	2N1484 2N1486	Units
Collector-Emitter Voltage	V_{CEO}	40	55	Vdc
Collector-Base Voltage	V_{CBO}	60	100	Vdc
Emitter-Base Voltage	V_{EBO}	12		Vdc
Collector Current -- Continuous	I_C	3.0		Adc
Total Power Dissipation @ $T_A = 25^0C$ (1) @ $T_C = 25^0C$ (2)	P_T	1.75 25		W W
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-65 to +200		^0C



TO-8

1) Derate linearly 0.010 W/^{0}C for $T_A > 25^0C$
2) Derate linearly 0.143 W/^{0}C for $T_C > 25^0C$

ELECTRICAL CHARACTERISTICS

Characteristics		Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage I_C = 100 mAdc	2N1483, 2N1485 2N1484, 2N1486	$V_{(BR)CEO}$	40 55		Vdc
Collector-Base Breakdown Voltage I_C = 100 µAdc	2N1483, 2N1485 2N1484, 2N1486	$V_{(BR)CBO}$	60 100		Vdc
Collector-Emitter Breakdown Voltage V_{EB} = 1.5 Vdc, I_C = 0.25 mAdc	2N1483, 2N1485 2N1484, 2N1486	$V_{(BR)CEX}$	60 100		Vdc
Collector-Base Cutoff Current V_{CB} = 30 Vdc V_{CB} = 50 Vdc	2N1483, 2N1485 2N1484, 2N1486	I_{CBO}		15 15	µAdc
Emitter-Base Cutoff Current V_{EB} = 12 Vdc		I_{EBO}		15	µAdc

6 Lake Street, Lawrence, MA 01841
1-800-446-1158 / (978) 794-1666 / Fax: (978) 689-0803

ELECTRICAL CHARACTERISTICS (con"t)

Characteristics		Symbol	Min.	Max.	Unit
ON CHARACTERISTICS [3]					
Forward-Current Transfer Ratio					
I_C = 750 mAdc, V_{CE} = 4.0 Vdc	2N1483, 2N1484	h_{FE}	20	60	
	2N1485, 2N1486		35	100	
Collector-Emitter Saturation Voltage					
I_C = 750 mAdc, I_B = 75 mAdc	2N1483, 2N1484	$V_{CE(sat)}$		1.20	
I_C = 750 mAdc, I_B = 40 mAdc	2N1485, 2N1486			0.75	Vdc
Base-Emitter Voltage					
I_C = 750 mAdc, V_{CE} = 4.0 Vdc		V_{BE}		2.0	Vdc
DYNAMIC CHARACTERISTICS					
Forward Current Transfer Ratio					
I_C = 5.0 mAdc, V_{CB} = 28 Vdc		$^{f}_{hfb}$	600		kHz
Output Capacitance					
V_{CB} = 10 Vdc, I_E = 0, 100 kHz ≤ f ≤ 1.0 MHz		C_{obo}		400	pF
SWITCHING CHARACTERISTICS					
Turn-On Time					
V_{CC} = 12 Vdc; R_C = 15.9 Ω; I_{B0} = I_{B2} = 35 mAdc; I_{B1}= 65 mAdc		$^{t}on + ^{t}off$		25	µs

(3)Pulse Test: Pulse Width = 300µs, Duty Cycle ≤ 2.0%.