

## TECHNICAL DATA

### NPN SILICON MEDIUM POWER TRANSISTOR

Qualified per MIL-PRF-19500/207

#### Devices

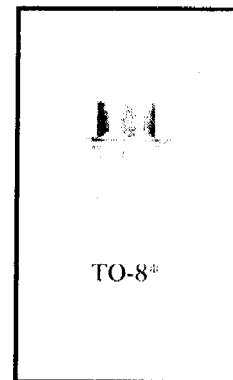
2N1483          2N1484          2N1485          2N1486

#### MAXIMUM RATINGS

Ratings	Symbol	2N1483 2N1485	2N1484 2N1486	Unit
Collector-Emitter Voltage	$V_{CE0}$	40	55	Vdc
Collector-Base Voltage	$V_{CB0}$	60	100	Vdc
Emitter-Base Voltage	$V_{EB0}$	12		Vdc
Collector Current -- Continuous	$I_C$	3.0		Ade
Total Power Dissipation	$P_T$	@ $T_A = 25^\circ\text{C}$ <sup>(1)</sup>	1.75	W
		@ $T_C = 25^\circ\text{C}$ <sup>(2)</sup>	25	W
Operating & Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +200		$^\circ\text{C}$

1) Derate linearly 0.010 W/ $^\circ\text{C}$  for  $T_A > 25^\circ\text{C}$

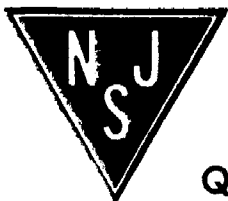
2) Derate linearly 0.143 W/ $^\circ\text{C}$  for  $T_C > 25^\circ\text{C}$



See Appendix A for  
 Package Outline

#### ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Max.	Unit
<b>OFF CHARACTERISTICS</b>				
Collector-Emitter Breakdown Voltage $I_C = 100 \text{ mAde}$	2N1483, 2N1485 2N1484, 2N1486	$V_{(BR)CE0}$	40 55	Vdc
Collector-Base Breakdown Voltage $I_C = 100 \mu\text{Ade}$	2N1483, 2N1485 2N1484, 2N1486	$V_{(BR)CB0}$	60 100	Vdc
Collector-Emitter Breakdown Voltage $V_{EB} = 1.5 \text{ Vdc}, I_C = 0.25 \text{ mAde}$	2N1483, 2N1485 2N1484, 2N1486	$V_{(BR)CEX}$	60 100	Vdc
Collector-Base Cutoff Current $V_{CB} = 30 \text{ Vdc}$ $V_{CB} = 50 \text{ Vdc}$	2N1483, 2N1485 2N1484, 2N1486	$I_{CBO}$	15 15	$\mu\text{Ade}$
Emitter-Base Cutoff Current $V_{EB} = 12 \text{ Vdc}$		$I_{EBO}$	15	$\mu\text{Ade}$



2N1483, 2N1484, 2N1485, 2N1486 JAN SERIES

**ELECTRICAL CHARACTERISTICS (con't)**

Characteristics	Symbol	Min.	Max.	Unit
<b>ON CHARACTERISTICS <sup>(3)</sup></b>				
Forward-Current Transfer Ratio $I_C = 750 \text{ mAdc}, V_{CE} = 4.0 \text{ Vdc}$	$h_{FE}$	20 35	60 100	
Collector-Emitter Saturation Voltage $I_C = 750 \text{ mAdc}, I_B = 75 \text{ mAdc}$ $I_C = 750 \text{ mAdc}, I_B = 40 \text{ mAdc}$	$V_{CE(sat)}$		1.20 0.75	Vdc
Base-Emitter Voltage $I_C = 750 \text{ mAdc}, V_{CE} = 4.0 \text{ Vdc}$	$V_{BE}$		2.0	Vdc
<b>DYNAMIC CHARACTERISTICS</b>				
Forward Current Transfer Ratio $I_C = 5.0 \text{ mAdc}, V_{CE} = 28 \text{ Vdc}$	$f_{hb}$	600		kHz
Output Capacitance $V_{CE} = 10 \text{ Vdc}, I_C = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	$C_{obo}$		400	pF
<b>SWITCHING CHARACTERISTICS</b>				
Turn-On Time $V_{CE} = 12 \text{ Vdc}; R_C = 15.9 \Omega; I_{B0} = I_{B2} = 35 \text{ mAdc}; I_{B1} = 65 \text{ mAdc}$	$t_{on} + t_{off}$		25	$\mu\text{s}$

(3) Pulse Test: Pulse Width = 300 $\mu\text{s}$ , Duty Cycle  $\leq$  2.0%.

