

## NPN SILICON MEDIUM POWER TRANSISTOR

Qualified per MIL-PRF-19500/207

### Devices

2N1483      2N1484      2N1485      2N1486

### Qualified Level

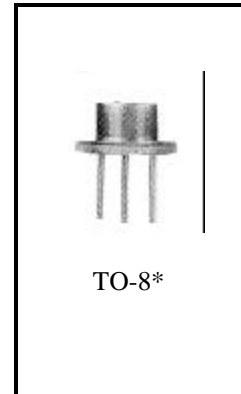
JAN  
JANTX

### MAXIMUM RATINGS

Ratings	Symbol	2N1483 2N1485	2N1484 2N1486	Unit
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	$P_T$	@ $T_A = 25^{\circ}C$ <sup>(1)</sup>		1.75
		@ $T_C = 25^{\circ}C$ <sup>(2)</sup>		25
Operating & Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +200		$^{\circ}C$

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

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



\*See Appendix A for Package Outline

### 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 $I_C = 100$ $\mu$ Adc	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	2N1483, 2N1485	$I_{CBO}$	15 15	$\mu$ Adc
$V_{CB} = 50$ Vdc	2N1484, 2N1486			
Emitter-Base Cutoff Current $V_{EB} = 12$ Vdc		$I_{EBO}$	15	$\mu$ Adc

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

**ELECTRICAL CHARACTERISTICS (cont)**

Characteristics	Symbol	Min.	Max.	Unit
-----------------	--------	------	------	------

**DC CHARACTERISTICS <sup>(3)</sup>**

Forward-Current Transfer Ratio $I_C = 750 \text{ mAdc}, V_{CE} = 4.0 \text{ Vdc}$	2N1483, 2N1484 2N1485, 2N1486	$h_{FE}$	20 35	60 100	
Collector-Emitter Saturation Voltage $I_C = 750 \text{ mAdc}, I_B = 75 \text{ mAdc}$ $I_C = 750 \text{ mAdc}, I_B = 40 \text{ mAdc}$	2N1483, 2N1484 2N1485, 2N1486	$V_{CE(sat)}$		1.20 0.75	Vdc
Base-Emitter Voltage $I_C = 750 \text{ mAdc}, V_{CE} = 4.0 \text{ Vdc}$		$V_{BE}$		2.0	Vdc

**DYNAMIC CHARACTERISTICS**

Forward Current Transfer Ratio $I_C = 5.0 \text{ mAdc}, V_{CB} = 28 \text{ Vdc}$		$f_{hfb}$	600		kHz
Output Capacitance $V_{CB} = 10 \text{ Vdc}, I_E = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$		$C_{obo}$		400	pF

**SWITCHING CHARACTERISTICS**

Turn-On Time $V_{CC} = 12 \text{ Vdc}; R_C = 15.9 \Omega; I_{B0} = I_{B2} = 35 \text{ mAdc}; I_{B1} = 65 \text{ mAdc}$		$t_{on} + t_{off}$		25	$\mu\text{s}$
---	--	--------------------	--	----	---------------

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

