

MNLM195-H REV 0BL

 Original Creation Date: 08/15/95
 Last Update Date: 12/10/96
 Last Major Revision Date: 08/15/95

ULTRA RELIABLE POWER TRANSISTOR
Industry Part Number

LM195

NS Part Numbers

LM195H/883

Prime Die

LM195

Controlling Document

5962-8777801XA

Processing

MIL-STD-883, Method 5004

Quality Conformance Inspection

MIL-STD-883, Method 5005

Subgrp	Description	Temp (°C)
1	Static tests at	+25
2	Static tests at	+125
3	Static tests at	-55
4	Dynamic tests at	+25
5	Dynamic tests at	+125
6	Dynamic tests at	-55
7	Functional tests at	+25
8A	Functional tests at	+125
8B	Functional tests at	-55
9	Switching tests at	+25
10	Switching tests at	+125
11	Switching tests at	-55

Electrical Characteristics

DC PARAMETERS: COLLECTOR TO EMITTER

SYMBOL	PARAMETER	CONDITIONS	NOTES	PIN-NAME	MIN	MAX	UNIT	SUB-GROUPS
Vce	Operating Voltage	$I_c \leq I_{max}$	1			42	V	1, 2, 3

DC PARAMETERS: BASE TO EMITTER

Bvbe	Breakdown Voltage	$V_{ce} \leq 42V$	1		42		V	1, 2, 3
Isc	Collector Current	$V_{ce} \leq 7V$			1.2		A	1
		$V_{ce} \leq 7V$			1		A	2, 3
Vsat	Saturation Voltage	$I_c \leq 1A$				2	V	1, 2
		$I_c \leq 1A$				2.5	V	3
Ib	Base Current	$0 \leq V_{be} \leq 42V, I_c \leq I_{max}$				5	uA	1, 2, 3
Iq	Quiescent Current	$V_{ce} = 42V, V_{be} = 0V$				5	mA	1, 2, 3
Vbk	Breakdown Delta Vbe	$V_c = 46-42V, I_l = 50mA$			-0.03	0.01	V	1
		$V_c = 46-38V$			-0.03	0.01	V	1
		$V_c = 50-42V$			-0.03	0.01	V	1
Thr	Thermal Response	100uS			-10	100	mV	1
		500uS			-10	70	mV	1
		2mS			-10	50	mV	1
		20mS			-10	10	mV	1

AC PARAMETERS:

tON	Response Time	$V_{in} = 0-2V, R_l = 36 \text{ Ohms}, V_+ = 36V$				1.8	uS	9, 10, 11
tOFF	Response Time	$V_{in} = 2-0V, R_l = 36 \text{ Ohms}, V_+ = 36V$				1.8	uS	9, 10, 11

Note 1: Parameter tested go-no-go only.