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B 1010376		REVISIONS		
SYM	DESCRIPTION	DATE	APPROVAL	
A	ADDED PROCUREMENT NOTES PER TDRR 00433	2-20-62	WJK	
B	REPLACED WITH CHANGE BY REV C PER TDRR 00513	-	WJK	

TABLE I

TEST PROCEDURE, INSPECTION & SYMBOLS PER MIL-S-19500						
STANDARD TEST CONDITIONS, UNLESS OTHERWISE SPECIFIED: TA = 25°C; f=1kc						
GROUP A						
PARAMETER	TEST CONDITIONS	SYMBOL	LIMITS		UNITS	LTPD (%)
			MIN	MAX		
COLLECTOR CUT-OFF CURRENT	IE=0 VCB=80V	ICBO	--	2	10 ⁻⁹ A	5 COMBINED
COLLECTOR CUT-OFF CURRENT	IE=0 VCB=80V TA=150°C	ICBO	--	10	10 ⁻⁶ A	
EMITTER CUT-OFF CURRENT	IC=0 VEB=5V	IEBO	--	2	nA	
BREAKDOWN VOLTAGE	IE=100uA IC=0	BVEBO	7	--	VOLTS	
BREAKDOWN VOLTAGE (SEE NOTE 4)	IC=100mA RBE=10Ω	LVCER	80	--	VOLTS	
BREAKDOWN VOLTAGE	IC=100uA IE=0	BVCBO	100	--	VOLTS	
BREAKDOWN VOLTAGE (SEE NOTE 4)	IC=30mA IB=0	LVCED	60	--	VOLTS	5 COMBINED
STATIC FORWARD CURRENT TRANSFER RATIO	IC=10uA VCE=10V	hFE	25 (40)	75 (100)	--	
STATIC FORWARD CURRENT TRANSFER RATIO	IC=100uA VCE=10V	hFE	30 (60)	90 (125)	--	
STATIC FORWARD CURRENT TRANSFER RATIO	IC=1mA VCE=10V	hFE	40 (80)	120 (150)	--	
STATIC FORWARD CURRENT TRANSFER RATIO (SEE NOTE 4)	IC=10uA VCE=10V	hFE	50 (90)	150 (180)	--	
STATIC FORWARD CURRENT TRANSFER RATIO, RATIO (SEE NOTE 5)	IC=1mA VCE=10V	hFE 1 hFE 2	.9	1	--	
STATIC FORWARD CURRENT TRANSFER RATIO, RATIO (SEE NOTE 5)	IC=100uA VCE=10V	hFE 1 hFE 2	.9	1	--	
SATURATION VOLTAGE	IC=50mA IB=5mA	VCE (sat)	--	1.2	VOLTS	
SATURATION VOLTAGE	IC=50mA IB=5mA	VBE (sat)	--	.9	VOLTS	
BASE VOLTAGE DIFFERENTIAL (ABSOLUTE VALUE)	IC=1mA VCE=5V	VBE 1 - VBE 2	--	5	mV	
BASE VOLTAGE DIFFERENTIAL (ABSOLUTE VALUE)	IC=100uA VCE=5V	VBE 1 - VBE 2	--	5	mV	
BASE VOLTAGE DIFFERENTIAL CHANGE	IC=100uA VCE=5V TA=-55°C TO 125°C	Δ VBE 1 - VBE 2	--	10	uV/°C	
SMALL-SIGNAL, SHORT-CIRCUIT INPUT IMPEDANCE	IC=1mA VCB=5V	hib	20	30	OHMS	5 COMBINED
SMALL-SIGNAL, SHORT-CIRCUIT FORWARD CURRENT TRANSFER RATIO	IC=1mA VCE=5V	hfe	50 (75)	150 (180)	--	

FOR INFORMATION ONLY
CLASS B RELEASE TDR No. 00162 DATE 12.12.62

TABLE I (CONTINUED)

PARAMETER	TEST CONDITIONS	SYMBOL	LIMITS		UNIT	LTPD (%)
			MIN	MAX		
SMALL-SIGNAL, SHORT-CIRCUIT FORWARD CURRENT TRANSFER RATIO	IC=50mA VCE=10V f=20mc	hfe	3		--	5 COMBINED
SMALL-SIGNAL, SHORT-CIRCUIT INPUT IMPEDANCE	IC=1mA VCE=5V	hie	1000	4000 (5000)	OHMS	
SMALL-SIGNAL, OPEN CIRCUIT OUTPUT ADMITTANCE	IC=1mA VCE=5V	hoe	4	16 (20)	UMHO	5 COMBINED
OUTPUT CAPACITANCE	IE=0 VCB=10V f=140KC	Cob	--	15	uuf	
INPUT CAPACITANCE	IC=0 VEB=0.5V f=140KC	Cib	--	85	uuf	5
NOISE FIGURE	IC=300uA VCE=10V BW=1- Rq=510Ω	NF	--	10	db	

Ⓟ REPLACED WITH CHANGE BY REV C

- B A WAIVE AS REQUIRED ALL INFORMATION PRESENTED ON THIS DRAWING EXCEPT LEAD MATERIAL SPEC. & PHYSICAL DIMENSIONS.
- B UPON SPECIFIC INSTRUCTION BY (TD) TECHNICAL DIRECTIVE PROCURE THIS PART AS CHANGE LETTER A BY ORDERING TO VENDOR CATALOG NO. & SPECIFICATIONS. REFERENCE ND 1002034.
- C DISREGARD THIS NOTE IN ITS ENTIRETY IF REFERENCE IS MADE TO THIS DRAWING BY OTHER THAN REVISION LETTER A.

NOTED

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ± ± ± DO NOT SCALE THIS DRAWING MATERIAL HEAT TREATMENT FINAL FINISH	NEXT ASSY USED ON APPLICATION
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QTY REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	FIND NO.
LIST OF MATERIALS			
MIT INSTRUMENTATION LAB CAMBRIDGE, MASS.		MANNED SPACECRAFT CENTER HOUSTON, TEXAS	
DRAWN <i>Ray W. Baker</i> DATE 3 Dec 62 CHECKED <i>D. M. Steyer</i> 6 DEC 62 APPROVAL <i>D. Cushman</i> 10 Dec 62		SEMICONDUCTOR DEVICE, TRANSISTOR, SILICON, DUAL SECTION SPECIFICATION CONTROL DRAWING	
APPROVAL			
NASA APPROVAL <i>W. J. Rhine</i> 12-12-62		CODE IDENT NO. SIZE C	NASA DRAWING NO. 1010376
MIT APPROVAL <i>W. J. Rhine</i> 12/13/62		SCALE NONE WT	SHEET 2 OF 3