

ULTRA LOW $r_{ec}(\text{sat})$
SILICON EPITAXIAL JUNCTION
PNP/NPN SWITCHING TRANSISTORS

2N3677
 2N5066

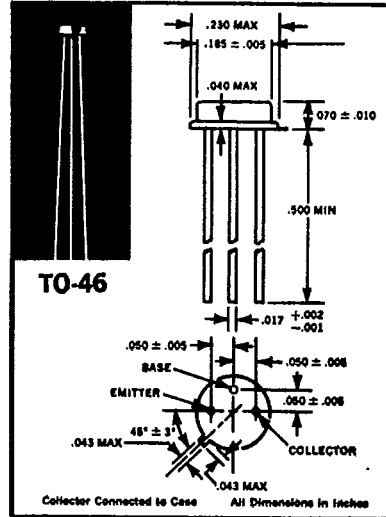
GEOMETRY 292, (2N3677)
 GEOMETRY 485, (2N5066)

T-37-23
 T-35-23

- COMPLEMENTARY TYPES 2N3677 (PNP) 2N5066 (NPN)
- $r_{ec}(\text{sat})$ 4 Ohms TYPICAL
- LOW C_{ob}
- LOW LEAKAGE
- HIGH BV_{EBO}

ELECTRICAL DATA ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	2N3677/2N5066	UNITS
Collector to Emitter Voltage	BV_{CES}	20	Volts
Emitter to Collector Voltage	BV_{ECS}	20	Volts
Collector to Base Voltage	BV_{CBO}	30	Volts
Emitter to Base Voltage	BV_{EBO}	30	Volts
Collector Current	I_C	100	mA
Power Dissipation	P_C	400	mW
Derating Factor	D_F	2.3	mW/°C
Junction Temperature (operating and storage)	T_J	-65°C to +200°C	
Lead Temperature (1/16" ± 1/32" from case)	T_L	240°C for 10 sec.	



ELECTRICAL CHARACTERISTICS: $T_A = 25^\circ\text{C}$ (UNLESS OTHERWISE STATED)

PARAMETER	SYMBOL	CONDITION	2N3677/2N5066			UNITS
			Min.	Typ.	Max.	
Collector To Base Leakage	I_{CBO}	$V_{CB} = V_{CB} \text{ MAX.}$	—	0.5	1.0	nA
Emitter to Base Leakage	I_{EBO}	$V_{EB} = V_{EB} \text{ MAX.}$	—	0.5	1.0	nA
Collector To Base Leakage	I_{CBO}	$V_{CB} = V_{CB} \text{ MAX.}$ (TEMP = 100°C)	—	30	100	nA
Emitter To Base Leakage	I_{EBO}	$V_{EB} = V_{EB} \text{ MAX.}$ (TEMP = 100°C)	—	30	100	nA
Offset Voltage	V_O	$I_B = 1 \text{ mA}$ $I_E = 0$	—	0.7	1.0	mV
DC Common Collector Forward Current Transfer Ratio	h_{FC}	$V_{EC} = 6 \text{ V}$ $I_E = 1 \text{ mA}$	4	8	—	—
High Frequency Current Gain	h_{fe}	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}$ $f = 1 \text{ MC}$	5	10	—	—
Inverted Dynamic Saturation Resistance	$r_{ec}(\text{sat})$	$I_o = 0.1 \text{ mA}$ $f = 1 \text{ kHz}$ $I_o = 1.0 \text{ mA}$	—	4	8	Ohms
Collector To Base Capacitance	C_{ob}	$V_{CB} = 6 \text{ V}, I_E = 0, f = 159 \text{ kHz}$	—	6	10	pfd
Emitter To Base Capacitance	C_{eb}	$V_{EB} = 6 \text{ V}, I_C = 0, f = 159 \text{ kHz}$	—	5	6	pfd

TELEDYNE CRYSTALONICS

147 Sherman Street, Cambridge, MA 02140 USA
 Tel: (617) 491-1670 • FAX: 617/547-6119 • TWX: 710-320-1196