

ENGINEERING DEVICE SPECIFICATION

NO. 6079/2N2698
SILICON TRANSISTOR

GENERAL DESCRIPTION

This device is an NPN Triple Diffused Planar Power Transistor packaged in an HD case, designed primarily for switching applications at or below a collector current of 5 amperes.

DESIGN LIMITS

General Assembly & Parts List	DR 4587	
Storage Temperature, T _{stg}		-65°C to 200°C
Operating Junction Temperature		-65°C to 200°C
Collector Current		5 A Max.
Base Current		.5 A Max.
Continuous Power Dissipation at 100°C		10 Watts
Thermal Resistance		10°C/W

PERFORMANCE CHARACTERISTICS, T_C = 25 ± 3°C (unless noted)

<u>Symbol</u>	<u>Condition</u>	<u>Limit</u>
BV _{CBO}	I _{CBO} = 10 μA	100 V Min.
BV _{EBO}	I _{EBO} = 10 μA	8 V Min.
BV _{CEO}	I _{CEO} = 10 MA	80 V Min.
I _{CEX}	V _{CE} = 60 V, V _{EB} = 0.5 V, T _C = 150°C	50 μA Max.
I _{CEX}	V _{CE} = 100 V, V _{EB} = 0.5 V	10 μA Max.
I _{CBO}	V _{CB} = 60 V	0.1 μA Max.
I _{EBO}	V _{EB} = 8 V	10 μA Max.
V _{CEO} (sus)	I _C = 100 MA*	70 V Min.
h _{FE}	I _C = 1 A, V _{CE} = 2 V *	40 - 120
h _{FE}	I _C = 1 A, V _{CE} = 2 V, T _C = -55°C *	10 Min.
h _{FE}	I _C = 5 A, V _{CE} = 6 V *	15 Min.
V _{CE} (Sat)	I _C = 1.0 A, I _B = 100 MA *	0.5 V Max.
V _{CE} (Sat)	I _C = 5 A, I _B = 500 MA *	3.0 V Max.
V _{BE} (Sat)	I _C = 1.0 A, I _B = 100 MA *	1.5 V Max.
V _{BE} (Sat)	I _C = 5.0 A, I _B = 500 MA *	2.5 V Max.

* Pulsed 330 μs, 2% duty cycle, square wave

		MINNEAPOLIS-HONEYWELL REGULATOR CO. RIVIERA BEACH, FLORIDA	
		FOR	
		DATE 12/26/62 DRWN. mmm	SECTION I
		CHKD. <i>12-27-62</i>	NO. 6079
		APPD. <i>JDM</i>	Page 1 of 2

ENGINEERING DEVICE SPECIFICATION

NO. 6079/2N2698
SILICON TRANSISTOR

<u>Symbol</u>	<u>Condition</u>	<u>Limit</u>
h_{fe}	$I_C = 0.2 \text{ A}, V_{CE} = 10 \text{ V}, f = 10 \text{ MC}$	2 Min.
t_r	(Appendix A)	80 ns Max.
t_s	(Appendix A)	60 ns Max.
t_f	(Appendix A)	80 ns Max.
t_{ON}	(Appendix B)	0.1 μsec Max.
t_{OFF}	(Appendix B)	1.5 μsec Max.
C_{ob}	$V_{CB} = 10 \text{ V}, I_C = 0, f = 1 \text{ MC}$	150 pf Max.

Ⓐ

2	A	Add: C_{ob}	1-23-63	F-44	MINNEAPOLIS-HONEYWELL REGULATOR CO.	
					RIVIERA BEACH, FLORIDA	
					FOR	
					DATE 12/26/62	DRWN. <i>mmm</i>
					SECTION I	
					NO. 6079	
					Page 2 of 2	