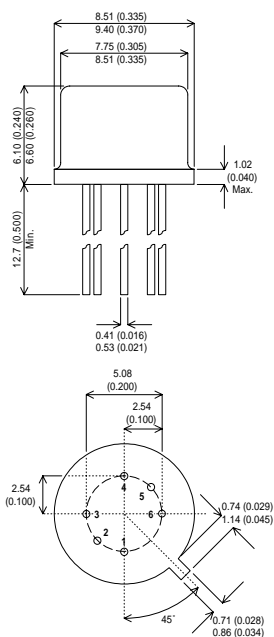


MECHANICAL DATA

Dimensions in mm (inches)



**COMPLEMENTARY DUAL
GENERAL PURPOSE TRANSISTOR
NPN / PNP SILICON**

TO77 PACKAGE

- PIN 1 – Collector
- PIN 2 – Base
- PIN 3 – Emitter
- PIN 4 – Emitter
- PIN 5 – Base
- PIN 6 – Collector

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

V_{CEO}	Collector – Emitter Voltage		30V
V_{CBO}	Collector – Base Voltage		50V
V_{EBO}	Emitter – Base Voltage		5.0V
I_C	Collector Current		500mA
T_J, T_{stg}	Operating and Storage Junction Temperature Range		-65 to +200°C
P_D	Total Device Dissipation @ $T_A = 25^{\circ}C$ Derate above 25°C	Per Side	Total Device
		575mW 3.29mW/°C	625mW 3.57mW/°C
P_D	Total Device Dissipation @ $T_C = 25^{\circ}C$ Derate above 25°C	1.8mW 10.3mW/°C	2.5mW 14.3mW/°C

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
OFF CHARACTERISTICS						
$V_{(BR)CEO^*}$	Collector – Emitter Breakdown Voltage	$I_C = 10\text{mA}$	$I_B = 0$	30	V	
$V_{(BR)CBO}$	Collector – Base Breakdown Voltage	$I_C = 10\mu\text{A}$	$I_E = 0$	50		
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage	$I_E = 10\mu\text{A}$	$I_C = 0$	5.0		
I_{BEV}	Base Cutoff Current	$V_{CE} = 30\text{V}$	$V_{BE} = 3.0\text{V}$		50	
I_{CEV}	Collector Cut-off Current	$V_{CB} = 30\text{V}$	$V_{BE(off)} = 3.0\text{V}$		30	
I_{CBO}	Collector Cutoff Current	$V_{CB} = 40\text{V}$	$I_E = 0$		100	
ON CHARACTERISTICS						
h_{FE}	DC Current Gain	$I_C = 1.0\text{mA}$	$V_{CE} = 10\text{V}$	40	70	—
		$I_C = 150\text{mA}$	$V_{CE} = 10\text{V}$	70	110	
		$I_C = 300\text{mA}$	$V_{CE} = 10\text{V}$	30	90	

THERMAL CHARACTERISTICS		Per Side	Total Device
$R_{\theta JC}$	Thermal Resistance Junction to Case	97°CW	70°CW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient ¹	304°CW	280°CW
Coupling Factor			
	Junction to Ambient	84%	
	Junction to Class		44%

$R_{\theta JA}$ is measured with the device soldered into a typical printed circuit board.¹

* Pulse Test: $t_p \leq 300\mu\text{s}$, $\delta \leq 2\%$.