DIGITRON Semiconductors

High-reliability discrete products
and engineering services since 1977

2SD425-2SD426 – NPN
2SB555-2SB556 – PNP

COMPLEMENTARY POWER TRANSISTORS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS T_A @ 25°C unless otherwise noted

Rating	Symbol	2SD425 2SB555	2SD426 2SB556	Unit
Collector to Base Voltage	V_{CBO}	140	120	V
Collector to Emitter Voltage	V_{CEO}	140	120	V
Emitter to Base Voltage	V_{EBO}	5		V
Collector Current	I_C	12		A
Emitter Current	I_E	12		A
Collector Power Dissipation, T_C = 25°c	P_D	100		W
Junction Temperature	T_J	150		°C
Storage Temperature Range	T_{stg}	-65 to 150		°C

ELECTRICAL CHARACTERISTICS @ 25°C unless otherwise noted

Characteristic	Symbol	Limits						Unit
		2SD425 2SB555			2SD426 2SB556			
		Min	Typ	Max	Min	Typ	Max	
Collector to Emitter Breakdown Voltage (I_C = 0.1A, I_B = 0)	$V_{(BR)CEO}$	140	-	-	120	-	-	V
Emitter to Base Breakdown Voltage (I_E = -10mA, I_C = 0)	$V_{(BR)EBO}$	5	-	-	5	-	-	V
Collector to Emitter Saturation Voltage (I_C = 7A, I_B = 0.7A) (I_C = 6A, I_B = 0.6A)	$V_{CE(sat)}$	- -	- -	3.0 3.0	- -	- -	3.0 3.0	V
Base to On-Voltage (I_C = 7A, V_{CE} = 5V)	$V_{BE(on)}$	-	-	2.5	-	-	2.5	V
Collector Cutoff Current (V_{CB} = 50V, I_E = 0)	I_{CBO}	-	-	0.1	-	-	0.1	mA
Emitter Cutoff Current (V_{EB} = 5V, I_C = 0)	I_{EBO}	-	-	0.1	-	-	0.1	mA
DC Current Gain (V_{CE} = 5V, I_C = 2A)	h_{FE}	40	-	140	40	-	140	-
Transition Frequency (I_C = 2A, V_{CE} = 5V)	f_T	-	5	-	-	5	-	V

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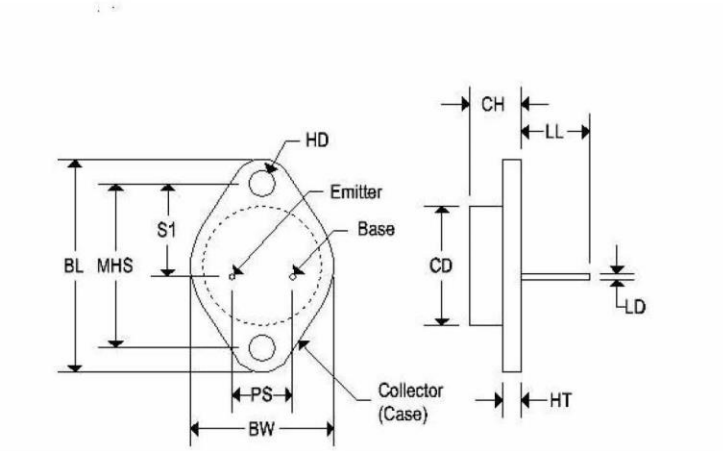
MECHANICAL CHARACTERISTICS

Case	TO-3
Marking	Alpha-numeric
Pin out	See below



	TO-3			
	Inches		Millimeters	
	Min	Max	Min	Max
CD	-	0.875	-	22.220
CH	0.250	0.380	6.860	9.650
HT	0.060	0.135	1.520	3.430
BW	-	1.050	-	26.670
HD	0.131	0.188	3.330	4.780
LD	0.038	0.043	0.970	1.090
LL	0.312	0.500	7.920	12.700
BL	1.550 REF		39.370 REF	
MHS	1.177	1.197	29.900	30.400
PS	0.420	0.440	10.670	11.180
S1	0.655	0.675	16.640	17.150