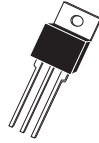


2N6040 2N6041 2N6042 PNP
2N6043 2N6044 2N6045 NPN

**COMPLEMENTARY SILICON POWER
DARLINGTON TRANSISTORS**



TO-220 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6040 and 2N6043 Series types are Complementary Silicon Power Transistors, manufactured by the epitaxial base process, designed for general purpose amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=25^{\circ}\text{C}$)

	SYMBOL	2N6040 2N6043	2N6041 2N6044	2N6042 2N6045	UNITS
Collector-Base Voltage	V_{CBO}	60	80	100	V
Collector-Emitter Voltage	V_{CEO}	60	80	100	V
Emitter-Base Voltage	V_{EBO}		5.0		V
Continuous Collector Current	I_C		8.0		A
Peak Collector Current	I_{CM}		16		A
Base Current	I_B		120		mA
Power Dissipation	P_D		75		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		$^{\circ}\text{C}$
Thermal Resistance	Θ_{JC}		1.67		$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=\text{Rated } V_{CBO}$		20	μA
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{BE(\text{OFF})}=1.5\text{V}$		20	μA
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{BE(\text{OFF})}=1.5\text{V}, T_C=150^{\circ}\text{C}$		200	μA
I_{CEO}	$V_{CE}=\text{Rated } V_{CEO}$		20	μA
I_{EBO}	$V_{EB}=5.0\text{V}$		2.0	mA
BV_{CEO}	$I_C=100\text{mA}$ (2N6040, 2N6043)	60		V
BV_{CEO}	$I_C=100\text{mA}$ (2N6041, 2N6044)	80		V
BV_{CEO}	$I_C=100\text{mA}$ (2N6042, 2N6045)	100		V
$V_{CE(\text{SAT})}$	$I_C=4.0\text{A}, I_B=16\text{mA}$ (2N6040, 2N6041, 2N6043, 2N6044)		2.0	V
$V_{CE(\text{SAT})}$	$I_C=3.0\text{A}, I_B=12\text{mA}$ (2N6042, 2N6045)		2.0	V
$V_{CE(\text{SAT})}$	$I_C=8.0\text{A}, I_B=80\text{mA}$		4.0	V
$V_{BE(\text{SAT})}$	$I_C=8.0\text{A}, I_B=80\text{mA}$		4.5	V
$V_{BE(\text{ON})}$	$V_{CE}=4.0\text{V}, I_C=4.0\text{A}$		2.8	V
h_{FE}	$V_{CE}=4.0\text{V}, I_C=4.0\text{A}$ (2N6040, 2N6041, 2N6043, 2N6044)	1,000	20,000	
h_{FE}	$V_{CE}=4.0\text{V}, I_C=3.0\text{A}$ (2N6042, 2N6045)	1,000	20,000	
h_{FE}	$V_{CE}=4.0\text{V}, I_C=8.0\text{A}$	100		

R1 (16-November 2009)

2N6040 2N6041 2N6042 PNP
2N6043 2N6044 2N6045 NPN

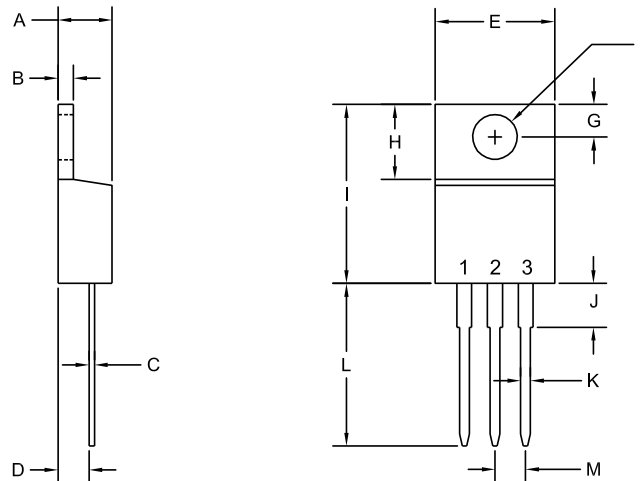


COMPLEMENTARY SILICON POWER DARLINGTON TRANSISTORS

ELECTRICAL CHARACTERISTICS - Continued: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
h_{fe}	$V_{CE}=4.0\text{V}$, $I_C=3.0\text{A}$, $f=1.0\text{kHz}$	300		
f_T	$V_{CE}=4.0\text{V}$, $I_C=3.0\text{A}$, $f=1.0\text{MHz}$	4.0		MHz
C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=100\text{kHz}$ (NPN Types)		200	pF
C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=100\text{kHz}$ (PNP Types)		300	pF

TO-220 CASE - MECHANICAL OUTLINE



R2

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.170	0.190	4.31	4.82
B	0.045	0.055	1.15	1.39
C	0.013	0.026	0.33	0.65
D	0.083	0.107	2.10	2.72
E	0.394	0.417	10.01	10.60
F (DIA)	0.140	0.157	3.55	4.00
G	0.100	0.118	2.54	3.00
H	0.230	0.270	5.85	6.85
I	0.560	0.625	14.23	15.87
J	-	0.250	-	6.35
K	0.025	0.038	0.64	0.96
L	0.500	0.579	12.70	14.70
M	0.090	0.110	2.29	2.79

LEAD CODE:

- 1) BASE
- 2) COLLECTOR
- 3) EMITTER
- 4) COLLECTOR

MARKING:

FULL PART NUMBER

TO-220 (REV: R2)

R1 (16-November 2009)

AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com