NPN MJ4033 – MJ4034 – MJ4035

MEDIUM POWER COMPLEMENTARY SILICON TRANSISTORS

They are silicon epitaxial-base NPN power transistors in monolithic Darlington configuration and are mounted in Jedec TO-3 metal case.
They are intented for use as output devices in complementary general purpose amplifier applications.
The complementary PNP types are the MJ4030, MJ4031, MJ4032.
Compliance to RoHS

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit
V_{CBO}	Collector-Base Voltage	I_E=0	MJ4033	60	V
			MJ4034	80	
			MJ4035	100	
V_{CEO}	Collector-EmitterVoltage	I_B=0	MJ4033	60	V
			MJ4034	80	
			MJ4035	100	
V_{EBO}	Emitter-Base Voltage	I_C=0	MJ4033	5.0	V
			MJ4034		
			MJ4035		
I_C	Collector Current			16	A
I_B	Base Current			0.5	A
P_T	Power Dissipation	@ T_C < 25°		150	W
T_J	Junction Temperature			200	°C
T_s	Storage Temperature			-65 to +200	

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
$R_{thJ\text{-}C}$	Thermal Resistance, Junction to Case	1.17	°C/W

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

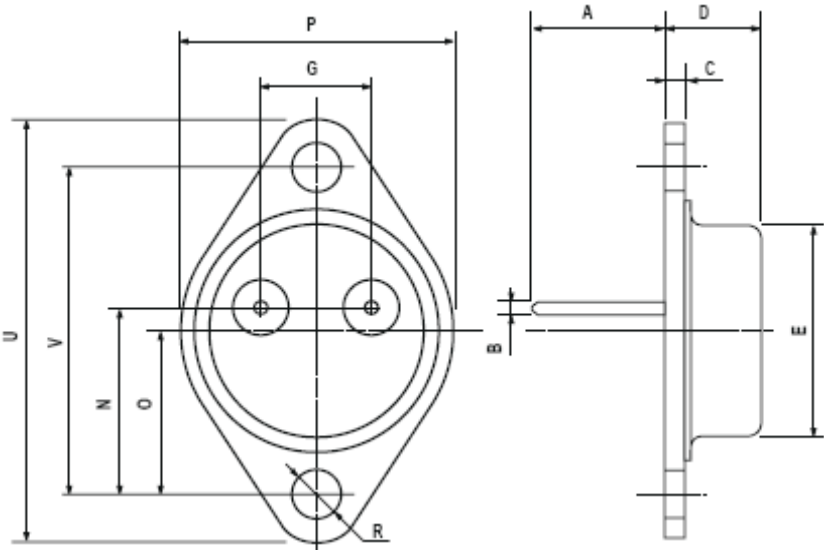
Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
V_{CEO}	Collector-Emitter Voltage (*)	I_C=100 mA, I_B=0	MJ4033	60	-	-	V
			MJ4034	80	-	-	
			MJ4035	100			
I_{CEO}	Collector Cutoff Current	V_{CE}=30 Vdc, I_B=0	MJ4033	-	-	3.0	mA
		V_{CE}=40 Vdc, I_B=0	MJ4034	-	-		
		V_{CE}=50 V, I_B=0	MJ4035	-	-		
I_{EBO}	Emitter Cutoff Current	V_{BE}=5.0 V, I_C=0	MJ4033	-	-	5.0	mA
			MJ4034				
			MJ4035				
I_{CER}	Collector-Emitter Leakage Current	V_{CB}=60 V R_{BE}=1.0 kΩ	MJ4033	-	-	1.0	mAdc
		V_{CB}=80 V R_{BE}=1.0 kΩ	MJ4034	-	-		
		V_{CB}=100 V R_{BE}=1.0 kΩ	MJ4035				
		V_{CB}=60 V R_{BE}=1.0 kΩ T_C=150°C	MJ4033	-	-	5.0	
		V_{CB}=80 V R_{BE}=1.0 kΩ T_C=150°C	MJ4034	-	-		
		V_{CB}=100 V R_{BE}=1.0 kΩ T_C=150°C	MJ4035				
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C=10 A I_B=40 mA	MJ4033	-	-	2.5	Vdc
			MJ4034				
			MJ4035				
		I_C=16 A I_B=80 mA	MJ4033	-	-	4.0	
			MJ4034				
			MJ4035				
V_{BE}	Base-Emitter Voltage (*)	I_C=10 A V_{CE}=3.0V	MJ4033	-	-	3	V
			MJ4034				
			MJ4035				
h_{FE}	DC Current Gain (*)	V_{CE}=10 V I_C=3.0 A	MJ4033	1000	-	-	-
			MJ4034				
			MJ4035				

(*) Pulse Width ≈ 300 μs, Duty Cycle ∠ 2.0%

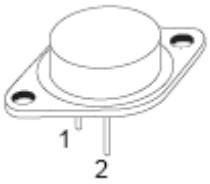
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MECHANICAL DATA CASE TO-3

DIMENSIONS (mm)		
	min	max
A	11	13.10
B	0.97	1.15
C	1.5	1.65
D	8.32	8.92
F	19	20
G	10.70	11.1
N	16.50	17.20
P	25	26
R	4	4.09
U	38.50	39.30
V	30	30.30



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector



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