

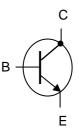
NPN 2N3439 - 2N3440

HIGH VOLTAGE TRANSISTOR

The 2N3439 and 2N3440 are high voltage silicon epitaxial transistors mounted in TO-39 metal package.

They are intended for use in power amplifier, in consumer and industrial line-operated applications.

These devices are particularity suited as drives in high voltage low current inverters, switching and series regulators. Compliance to RoHS.



ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Va	Hois	
Symbol			2N3439	2N3440	- Unit │
V _{CEO}	Collector-Emitter Voltage	$I_B = 0$	350	250	V
V _{CBO}	Collector-Base Voltage	$I_E = 0$	450	300	V
V_{EBO}	Emitter-Base Voltage	$I_C = 0$	7		V
Ic	Collector Current		1		Α
I _B	Base Current		50	500	
P _D	Total Power Dissipation	$T_{amb} = 25^{\circ}$	1		W
	Total Fower Dissipation	$T_{case} = 25^{\circ}$	10		VV
T_J	Junction Temperature		200		- °C
T _{Stg}	Storage Temperature range		-65 to +200		

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R _{thJ-a}	Thermal Resistance, Junction to ambient	175	°C/W
R _{thJ-c}	Thermal Resistance, Junction to case	35	°C/W



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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

Symbol	Ratings	Test Condition(s)		Min	Тур	Max	Unit
I _{CBO}	Collector Cutoff Current	$V_{CB} = 360 \text{ V}, I_{E} = 0$ $V_{CB} = 250 \text{ V}, I_{E} = 0$	2N3439 2N3440	_	-	20	μA
I _{CEO}	Collector Cutoff	$V_{CE} = 300 \text{ V}, I_B = 0$	2N3439	-	-	20	μA
ICEO	Current	$V_{CE} = 200 \text{ V}, I_{B} = 0$	2N3440	-	-	50	μΛ
I _{CEX}	Collector Cutoff	$V_{CE} = 450 \text{ V}, V_{BE} = -1.5 \text{ V}$	2N3439	_	-	500	μΑ
	Current	$V_{CE} = 300 \text{ V}, V_{BE} = -1.5 \text{ V}$	2N3440				
I _{EBO}	Emitter Cutoff Current	$V_{BE} = 6 \text{ V}, I_{C} = 0$	2N3439	_	-	20	μA
			2N3440				
V _{CEO}	Collector-emitter	$II_0 = 50 \text{ mA} I_0 = 0$	2N3439	350	-	-	V
▼ CEO	Breakdown Voltage		2N3440	250	-	-	V
	DC Current Gain	$I_C = 2 \text{ mA}, V_{CE} = 10 \text{ V}$	2N3439	30	-	-	
h _{FE}		$I_C = 20 \text{ mA}, V_{CE} = 10 \text{ V}$	2N3439 2N3440	40	-	160	-
V _{CE(SAT)}	Collector-Emitter saturation Voltage	$I_C = 50 \text{ mA}, I_B = 4 \text{ mA}$		-	-	0.5	٧
V _{BE(SAT)}	Base-Emitter saturation Voltage	$I_C = 50 \text{ mA}, I_B = 4 \text{ mA}$		-	-	1.3	٧
f⊤	Transition frequency	$I_C = 10 \text{ mA}, V_{CB} = 10 \text{ V}$ f = 5 MHz		15	-	-	MHz
C _{ob}	Output Capacitance	V _{CB} = 10 V, f = 1MHz		-	-	10	pF

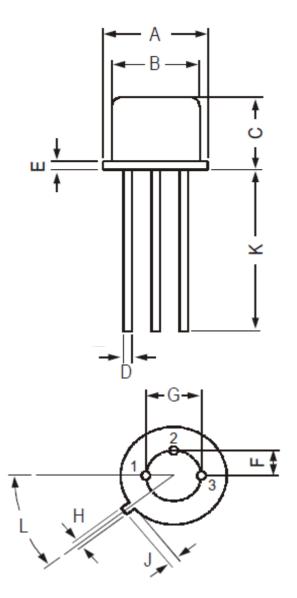


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MECHANICAL DATA CASE TO-39

DIMENSIONS (mm)				
	min	max		
Α	8.50	9.39		
В	7.74	8.50		
С	6.09	6.60		
D	0.40	0.53		
E	-	0.88		
F	2.41	2.66		
G	4.82	5.33		
Н	0.71	0.86		
J	0.73	1.02		
K	12.70 -			
L	42°	48°		

Pin 1 :	Emitter
Pin 2 :	Base
Pin 3 :	Collector
Case:	Collector



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