



Over 150 million die shipped per year

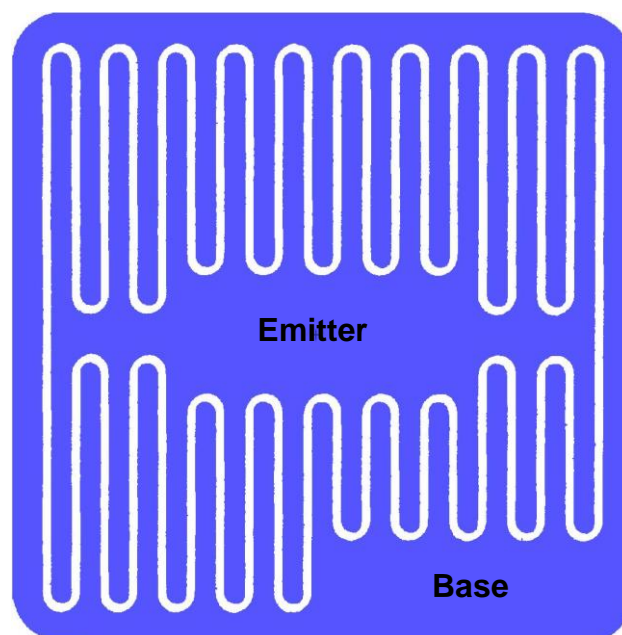
G137 Chip Family

NPN Bipolar

DESCRIPTION	FEATURES
<p>The G137 chip family is an NPN bipolar multi-epitaxial planar transistor intended for applications requiring fast switching, low saturation, high power robust devices.</p>	<ul style="list-style-type: none"> • HIGH CURRENT - UP TO 35 AMPS • HIGH VOLTAGE - UP TO 550 VOLTS (V_{CBO}) • FAST SWITCHING ($t_f = 0.1\mu s$) • VERY LOW SATURATION VOLTAGES

1.0 PHYSICAL FEATURES

DIE SIZE	175 mils x 175 mils
DIE THICKNESS	550 micron
FRONT METALLISATION	5 micron Aluminium
BACK METALLISATION	0.75 micron Aluminium/Titanium/Nickel/Gold
BOND PAD SIZE	
Emitter	66 mils x 20 mils
Base	60 mils x 18 mils





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2.0 TYPICAL CHARACTERISTICS

	G537	G637	G737	G337	G437	G237	Unit
V_{CBO}	200	280	320	400	450	550	V
V_{CEO}	85	120	150	200	240	285	V
I_C	35	30	25	25	20	15	A
$V_{CE(sat)}$ at 50% I_C	0.4	0.4	0.5	0.5	0.5	0.5	V
Similar to	2N5301 2N5302 2N5303 2N5885 2N5886	BUV39 BUV40 BUX10 BDY58		BUV41	BUX11 BUW91	BUX12 BUV42 BUW92	

3.0 PROBED ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Symbol	Parameter	Test Conditions	Type	Min	Typ	Max	Unit
V_{CEO}	Collector - Emitter Breakdown Voltage	$I_C = 1\text{mA}$ $I_B = 0$	G237	280	285		V
			G437	230	240		
			G337	179	200		
			G737	142	150		
			G637	116	120		
			G537	79	85		
I_{CES}	Collector Cut-Off Current	At specified BV_{CEO}	ALL			1	mA
I_{EBO}	Emitter-Base Cut-Off Current	$V_{EB} = 11\text{V}$ $I_C = 0$	ALL			1	mA
hfe	DC Current Gain	$I_C = 1\text{A}$ $V_{CE} = 5\text{V}$	G237	40		90	
			G437				
			G337				
			G737				
			G637				
			G537				
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}$ $I_B=0.1\text{A}$	ALL			0.15	V



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