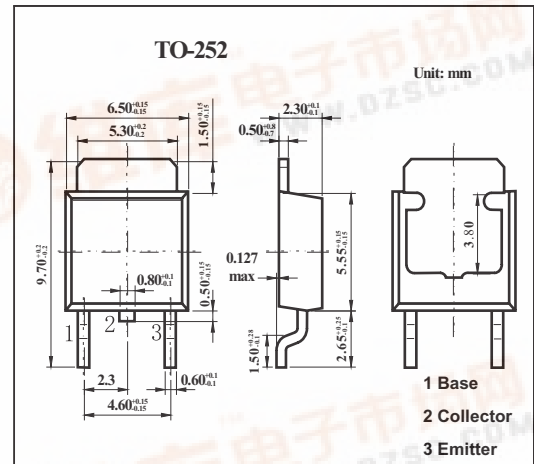


SMD Type Transistors

NPN Epitaxial Silicon Transistor
MJD47;MJD50

Features

- Load Formed for Surface Mount Application
- Straight Lead



Absolute Maximum Ratings Ta = 25°C unless otherwise noted

Parameter	Symbol	Rating	Unit
Collector-Emitter Voltage MJD47	V _{CE0}	350	V
		MJD50	500
Collector-Emitter Voltage MJD47	V _{CEO}	250	V
		MJD50	400
Emitter-Base Voltage	V _{EB0}	5	V
Collector Current (DC)	I _C	1	A
Collector Current (Pulse)	I _{CP}	2	A
Base Current	I _B	0.6	A
Collector Dissipation (TC=25°C)	P _C	15	W
Collector Dissipation (Ta=25°C)		1.56	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-65 to 150	°C

Electrical Characteristics Ta = 25°C unless otherwise noted

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit	
Collector-Emitter Sustaining Voltage * MJD47	V _{CE0(sus)}	I _C = 30mA, I _B = 0	250			V	
			MJD50	400			V
Collector Cut-off Current	I _{CEO}	V _{CE} = 150V, I _B = 0			0.2	mA	
		MJD50	V _{CE} = 300V, I _B = 0			0.2	mA
Collector Cut-off Current	I _{CES}	MJD47	V _{CE} = 350, V _{EB} = 0			0.1	mA
		MJD50	V _{CE} = 500, V _{EB} = 0			0.1	mA
Emitter Cut-off Current	I _{EBO}	V _{BE} = 5V, I _C = 0			1	mA	
DC Current Gain *	h _{FE}	V _{CE} = 10V, I _C = 0.3A	30		150		
		V _{CE} = 10V, I _C = 1A	10				
Collector-Emitter Saturation Voltage *	V _{CE(sat)}	I _C = 1A, I _B = 0.2A			1	V	
Base-Emitter Saturation Voltage *	V _{BE(sat)}	V _{CE} = 10A, I _C = 1A			1.5	V	
Current Gain Bandwidth Product	f _T	V _{CE} = 10V, I _C = 0.2A	10			MHz	

* Pulse Test: PW ≤ 300μs, Duty Cycle ≤ 2%

