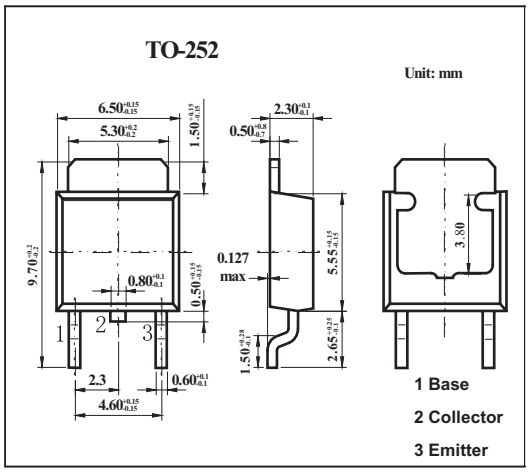
NPN Epitaxial Silicon Transistor

MJD47;MJD50



Features

- Load Formed for Surface Mount Application
- Straight Lead

Absolute Maximum Ratings Ta = 25℃unless otherwise noted

Parameter		Symbol	Rating	Unit
Collector-Emitter Voltage	MJD47	V_{CBO}	350	V
	MJD50		500	V
Collector-Emitter Voltage	MJD47	V_{CEO}	250	V
	MJD50		400	V
Emitter-Base Voltage		V_{EBO}	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℃)		P_C	15	W
Collector Dissipation (Ta=25℃)			1.56	W
Junction Temperature		T_J	150	℃
Storage Temperature		T_{STG}	-65 to 150	℃

Electrical Characteristics Ta = 25℃unless otherwise noted

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Collector-Emitter Sustaining Voltage *	MJD47	$V_{CEO(sus)}$	I_C = 30mA, I_B = 0	250			V
	MJD50			400			V
Collector Cut-off Current	MJD47	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	MJD47	I_{CES}	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%