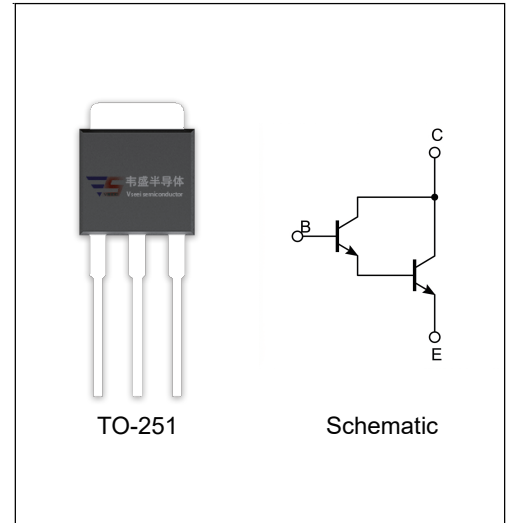


MJD112 TRANSISTOR (NPN)

FEATURES

- Complementary Darlington Power Transistors
- Dpak for Surface Mount Applications



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	100	V
V _{CEO}	Collector-Emitter Voltage	100	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	2	A
P _C	Collector Power Dissipation	1.5	W
R _{θJC}	Thermal resistance, junction to case	6.25	°C/W
R _{θJA}	Thermal resistance, junction to Ambient	83.3	°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55-150	°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=30mA, I_B=0$	100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=5mA, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=100V, I_E=0$			20	μA
Collector-emitter cut-off current	I_{CEO}	$V_{CE}=50V, I_B=0$			20	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			2	mA
DC current gain	$h_{FE(1)}$	$V_{CE}=3V, I_C=500mA$	500			
	$h_{FE(2)}$	$V_{CE}=3V, I_C=2A$	1000		12000	
	$h_{FE(3)}$	$V_{CE}=3V, I_C=4A$	200			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=2A, I_B=8mA$			2	V
	$V_{CE(sat)2}$	$I_C=4A, I_B=40mA$			3	V
Base-emitter voltage	V_{BE}	$V_{CE}=3V, I_C=2A$			2.8	V
Transition frequency	f_T	$V_{CE}=10V, I_C=0.75A, f=1MHz$	25			MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=0.1MHz$			100	pF

