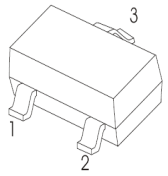
TRANSISTOR(NPN)

SOT－23



1. BASE
2. EMITTER
3. COLLECTOR

FEATURES

- High Voltage Transistor

MARKING:M1F

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Power Dissipation	225	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	556	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=0.1mA, I_E=0	160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=1mA, I_B=0	140			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=0.01mA, I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=100V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0			50	nA
DC current gain	$h_{FE(1)}$	V_{CE}=5V, I_C=1mA	60			
	$h_{FE(2)}$	V_{CE}=5V, I_C=10mA	60		250	
	$h_{FE(3)}$	V_{CE}=5V, I_C=50mA	20			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	I_C=10mA, I_B=1mA			0.15	V
	$V_{CE(sat)2}$	I_C=50mA, I_B=5mA			0.25	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	I_C=10mA, I_B=1mA			1	V
	$V_{BE(sat)2}$	I_C=50mA, I_B=5mA			1.2	V

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.