

TO-92 Plastic-Encapsulate Transistors

MPSA05,06 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM} : 0.625 \text{ W } (T_{amb}=25^{\circ}\text{C})$$

Collector current

$$I_{CM} : 0.5 \text{ A}$$

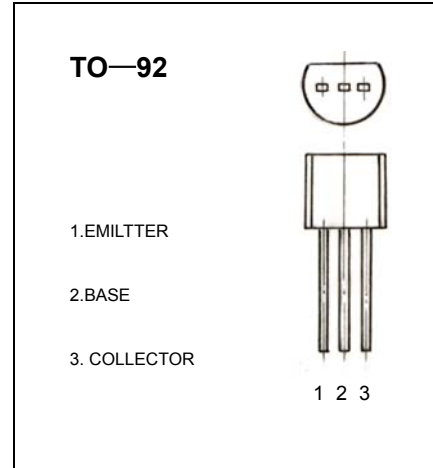
Collector-base voltage

$$V_{(BR)CBO} : \text{MPSA05: } 60 \text{ V}$$

$$\text{MPSA06: } 80 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^{\circ}\text{C to } +150^{\circ}\text{C}$$



ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	MPSA05 MPSA06	$V_{(BR)CBO}$	$I_C=100 \mu\text{A}, I_E=0$	60 80	V
Collector-emitter breakdown voltage	MPSA05 MPSA06	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	60 80	V
Emitter-base breakdown voltage		$V_{(BR)EBO}$	$I_E=100 \mu\text{A}, I_C=0$	4	V
Collector cut-off current	MPSA05 MPSA06	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$ $V_{CB}=80\text{V}, I_E=0$	0.1 0.1	μA
Collector cut-off current	MPSA05 MPSA06	I_{CEO}	$V_{CE}=50\text{V}, I_B=0$ $V_{CE}=60\text{V}, I_B=0$	0.1 0.1	μA
Emitter cut-off current		I_{EBO}	$V_{EB}=3\text{V}, I_C=0$	0.1	μA
DC current gain		h_{FE}	$V_{CE}=1\text{V}, I_C=100\text{mA}$	100	
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$	0.25	V
Base-emitter on voltage		$V_{BE(on)}$	$I_C=100\text{mA}, V_{CE}=1\text{V}$	1.2	V
Transition frequency		f_T	$V_{CE}=2\text{V}, I_C=10\text{mA}$ $f=100\text{MHz}$	100	MHz