

MPSH10/11 TRANSISTOR (NPN)**FEATURES**

Power dissipation

$$P_{CM}: 0.35 \text{ W (Tamb=25}^{\circ}\text{C)}$$

Collector current

$$I_{CM}: 0.05 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: 30 \text{ V}$$

Operating and storage junction temperature range

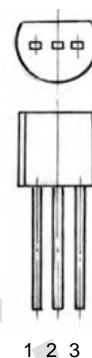
$$T_J, T_{stg}: -55^{\circ}\text{C to } +150^{\circ}\text{C}$$

TO-92

1. BASE

2. EMITTER

3. COLLECTOR

**ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}, I_E = 0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, I_B = 0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	3			V
Collector cut-off current	I_{CBO}	$V_{CB} = 25\text{V}, I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 20\text{V}, I_B = 0$			0.2	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 2\text{V}, I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 10\text{V}, I_C = 4\text{mA}$	60		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 4\text{mA}, I_B = 0.4\text{mA}$			0.5	V
Collector-emitter voltage	$V_{BE(on)}$	$V_{CE} = 10\text{V}, I_C = 4\text{mA}$			0.95	V
Transition frequency	f_T	$V_{CE} = 10\text{V}, I_C = 4\text{mA}$ $f = 100\text{MHz}$	650			MHz