

## SOT-89 Plastic-Encapsulated Transistors

### 2SA1740 TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM} : 500 \text{ mW (Tamb=25°C)}$$

Collector current

$$I_{CM} : -200 \text{ mA}$$

Collector-base voltage

$$V_{(BR)CBO} : -400 \text{ V}$$

Operating and storage junction temperature range

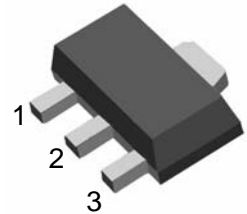
$$T_J, T_{stg}: -55°C \text{ to } +150°C$$

#### SOT-89

1. BASE

2. COLLECTOR

3. EMITTER



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-300V, I_E=0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-4V, I_C=0$			-0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=-10V, I_C=-50mA$	60		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-50mA, I_B=-5mA$			-0.8	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-50mA, I_B=-5mA$			-1	V
Transition frequency	$f_T$	$V_{CE}=-30V, I_C=-10mA$		70		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-30V, I_E=0, f=1MHz$		5		pF
Turn-ON Time	$t_{on}$	$V_{CC}=-150V, I_C=-50mA,$		0.25		$\mu s$
Turn-OFF Time	$t_{off}$	$I_{B1}=-I_{B2}=-5mA$		5		$\mu s$

#### CLASSIFICATION OF $h_{FE(1)}$

Rank	D	E
Range	60-120	100-200
Marking	AK	