

TRANSISTOR (NPN)
Plastic-Encapsulate Transistor
FEATURES

Power dissipation

$$P_{CM}: 1.25W (T_{amb}=25^{\circ}C)$$

Collector current

$$I_{CM}: 1.5A$$

Collector-base voltage

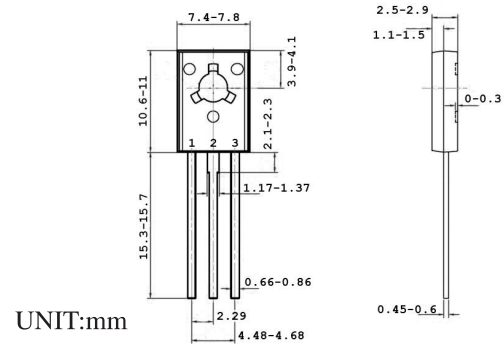
$$V_{(BR)CBO}: 700V$$

Operating and storage junction temperature range

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

TO-126

1. BASE
2. COLLECTOR
3. EMITTER


MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ELECTRICAL CHARACTERISTICS

Parameters	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	700		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	400		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	9		V
Collector cut-off current	I_{CBO}	$V_{CB}=700V, I_E=0$		1	mA
Collector cut-off current	I_{CEO}	$V_{CE}=400V, I_B=0$		500	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=9V, I_C=0$		1	mA
DC current gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=0.5A$	8	40	
	$h_{FE(2)}$	$V_{CE}=10V, I_C=0.5mA$	5		
Collector-emitter saturation voltage	V_{CEsat}	$I_C=1A, I_B=250mA$		1	V
Base-emitter saturation voltage	V_{BEsat}	$I_C=1A, I_B=250mA$		1.2	V
Base-emitter voltage	V_{BE}	$I_E=2A$		3	V
Transition frequency	f_T	$V_{CE}=10V, I_C=100mA, f=1MHz$	5		MHz
Fall time	t_f	$I_C=1A, I_{B1}=-I_{B2}=0.2mA,$		0.5	μS
Storage time	t_s	$V_{CC}=100V$		2.5	μS

CLASSIFICATION OF $h_{FE(1)}$

Rank						
Range	8-15	15-20	20-25	25-30	30-35	35-40