



TO-126 Plastic-Encapsulate Transistors

BD439 TRANSISTOR (NPN)

FEATURES

Power dissipation

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

Collector current

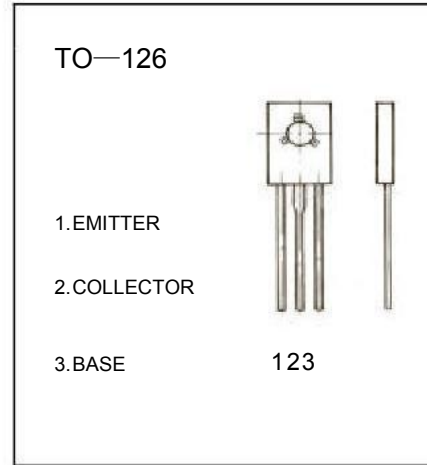
I_{CM} : 4.0 A

Collector-base voltage

$V_{(BR)CBO}$: 60 V

Operating and storage junction temperature range

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



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-basebreakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter sustaining voltage	$V_{CE(SUS)}$	$I_C=100mA, I_B=0$	60			V
Emitter-basebreakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=60V, I_E=0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			1	mA
DC currentgain	$h_{FE(1)}$	$V_{CE}=1V, I_C=500mA$	40		475	
DC currentgain	$h_{FE(2)}$	$V_{CE}=5V, I_C=10mA$	20			
DC currentgain	$h_{FE(3)}$	$V_{CE}=1V, I_C=2A$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=3A, I_B=0.3A$			0.8	V
Base-emitter voltage	V_{BE}	$V_{CE}=1V, I_C=2A$			1.1	V
Transition frequency	f_T	$V_{CE}=1V, I_C=250mA$	3			MHz

Rank	1	2	3
Range	20-100	100-250	250-475

CLASSIFICATION OF $h_{FE(1)}$

