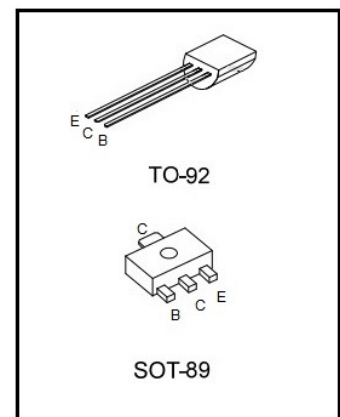


2SD1616A

- Complementary to: 2SB1116A
- Package: TO-92/SOT-89

Maximum Ratings (Ta = 25°)

Parameter	Symbol	Rating	Unit
Collector-base voltage	BV_{CBO}	120	V
Collector-emitter voltage	BV_{CEO}	60	V
Emitter-base voltage	BV_{EBO}	6	V
Collector current	I_{CM}	1	A
Collector Power Dissipation	P_C	TO-90	750
		SOT-89	500
			mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C



Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=10\mu A, I_E=0$	120			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=2mA, I_B=0$	60			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu A, I_C=0$	6			V
collector-base cut-off current	I_{CBO}	$V_{CB}=120V, I_E=0$			0.1	μA
emitter-base cut-off current	I_{EBO}	$V_{EB}=6V, I_C=0$			0.1	μA
DC current gain	H_{FE}	$V_{CE}=2V, I_B=100mA$	135		600	
	H_{FE1}	$V_{CE}=2V, I_B=1A$	80			
collector-emitter saturation voltage	V_{CESAT}	$I_C=1A, I_B=50mA$			0.3	V
Base-Emitter Saturation Voltage	V_{BESAT}	$I_C=1A, I_B=50mA$			1.2	V
Transition frequency	f_T	$V_{CE}=2V, I_B=100mA$	100			MHz

Classification of H_{FE}

Rank	L	K	U
Range	135-270	200-400	300-600