



SOT-89-3L Plastic-Encapsulate Transistors

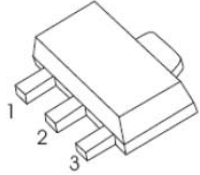
2SD2153 TRANSISTOR (NPN)

SOT-89-3L

1. BASE

2. COLLECTOR

3. EMITTER



FEATURES

- Low saturation voltage
- Excellent DC current gain characteristics

MARKING: DN

MAXIMUM RATINGS(T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector -Base Voltage	30	V
V _{CEO}	Collector-Emitter Voltage	25	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Continuous Collector Current	2	A
I _{CP} *	Pulsed Collector Current	3	A
P _C	Collector Dissipation	0.5	W
R _{θJA}	Thermal Resistance from Junction to Ambient	250	°C/ W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =50μA, I _E =0	30			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	25			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =50μA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =20V, I _E =0			0.5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			0.5	μA
DC current gain	h _{FE}	V _{CE} =6V, I _C =500mA	560		2700	
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C =1A, I _B =20mA			0.5	V
Transition frequency	f _T	V _{CE} =10V, I _C =10mA, f=100MHz		110		MHz
Collector capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		22		pF

*Single pulse, P_w=10ms

CLASSIFICATION OF h_{FE}

Rank	U	V	W
Range	560~1200	820~1800	1200~2700

Typical Characteristics

2SD2153

