VS303PL TRANSISTOR (PNP)

1.BASE
2.COLLECTOR
3.EMITTER

SOT-89

FEATURES

- Small Flat Package
- High DC Current Gain
- Ultra Low Collector-Emitter Saturation Voltage

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-3	A
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -0.1mA,I_E=0	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA,I_B=0	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-0.1mA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-35V,I_E=0			-100	nA
Collector cut-off current	I_{CES}	V_{CES}=-35V			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V,I_C=0			-100	nA
DC current gain	h_{FE}*	V_{CE}=-1.5V, I_C=-1A	100			
		V_{CE}=-1.5V, I_C=-1.5A	100		400	
		V_{CE}=-3V, I_C=-2A	100			
Collector-emitter saturation voltage	$V_{CE(sat)}$*	I_C=-0.8A,I_B=-26mA			-0.15	V
		I_C=-1.2A,I_B=-40mA			-0.2	V
		I_C=-2A,I_B=-66.6mA			-0.25	V
		I_C=-3A,I_B=-100mA			-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$*	I_C=-1.2A,I_B=-40mA			-1	V
		I_C=-3A,I_B=-100mA			-1.2	V
Base-emitter voltage	V_{BE}*	V_{CE}=-3V, I_C=-2A			-1	V

Transition frequency	f_T	V_{CE}=-5V,I_C=-100mA, f=100MHz	100			MHz
Collector input capacitance	C_{ib}	V_{EB}=-0.5V,I_C=0, f=1MHz			650	pF
Collector outtput capacitance	C_{ob}	V_{CB}=-3V,I_E=0, f=1MHz			100	pF
Turn on time	t_{on}	V_{CC}=-10V, I_C=-1A, I_{B1}= -100mA,R_L=3Ω		35		ns
Turn off time	t_{off}	V_{CC}=-10V, I_C=1A, I_{B1}= I_{B2}=-100mA,R_L=3Ω		225		ns

*Pulse width=300μs, Duty cycle＜2%.