

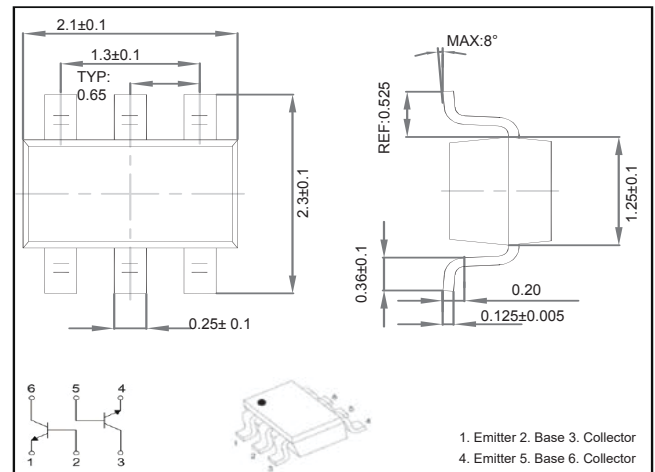
SOT-363 Plastic-Encapsulate Transistors

Features

- Epitaxial planar die construction
- Ideal for low power amplification and switching
- High Stability and High Reliability
- DUAL TRANSISTOR(NPN+NPN)

Mechanical Data

- Case style: SOT-363 molded plastic
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS @

25°C Ambient Temperature (unless otherwise noted)

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter -Base Voltage	V_{EBO}	5	V
Collector Current-Continuous	I_C	200	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55-+150	°C
Thermal resistance From junction to ambient	$R_{\theta JA}$	625	°C/W

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5		V
Collector cut-off current	I_{CEX}	$V_{CE}=30V, V_{EB(off)}=3V$		50	nA
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$		50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$		50	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=0.1mA$	40		
	$h_{FE(2)}$	$V_{CE}=1V, I_C=1mA$	70		
	$h_{FE(3)}$	$V_{CE}=1V, I_C=10mA$	100	300	
	$h_{FE(4)}$	$V_{CE}=1V, I_C=50mA$	60		
	$h_{FE(5)}$	$V_{CE}=1V, I_C=100mA$	30		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$		0.20	V
		$I_C=50mA, I_B=5mA$		0.30	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C=10mA, I_B=1mA$	0.65	0.85	V
		$I_C=50mA, I_B=5mA$		0.95	V
Transition frequency	f_T	$V_{CE}=20V, I_C=10mA, f=100MHz$	300		MHz
Collector output capacitance	C_{ob}	$V_{CB}=5V, I_E=0, f=1MHz$		4	pF
Noise figure	NF	$V_{CE}=5V, I_C=0.1mA, f=1KHz, R_S=1K\Omega$		5	dB
Delay time	t_d	$V_{CC}=3V, V_{BE(off)}=-0.5V, I_C=10mA, I_{B1}=1mA$		35	nS
Rise time	t_r			35	nS
Storage time	t_s			200	nS
Fall time	t_f	$V_{CC}=3V, I_C=10mA, I_{B1}=I_{B2}=1mA$		50	nS

*Pulse test: pulse width $\leq 300\mu s$, duty cycle $\leq 2.0\%$

RATINGS AND CHARACTERISTIC CURVES
