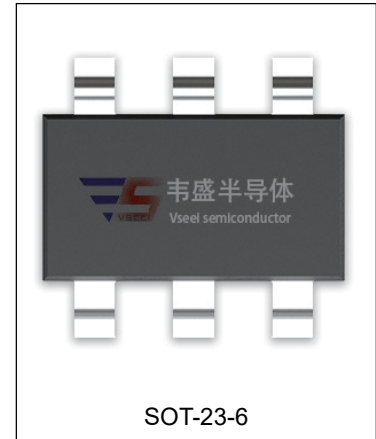


DMMT5551S TRANSISTOR (NPN+NPN)**FEATURES**

- Epitaxial Planar Die Construction
- Ideal for Medium Power Amplification and Switching

MARKING: 5551S**MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)**

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	6	V
I_{C}	Collector Current	600	mA
P_{C}	Collector Power Dissipation	300	mW
$R_{\text{ΘJA}}$	Thermal Resistance From Junction To Ambient	416	$^{\circ}\text{C}/\text{W}$
$T_{\text{J}}, T_{\text{stg}}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=100\mu\text{A}$, $I_{\text{E}}=0$	180			V
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}^*$	$I_{\text{C}}=1\text{mA}$, $I_{\text{B}}=0$	160			V
Emitter-base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}}=10\mu\text{A}$, $I_{\text{C}}=0$	6			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=120\text{V}$, $I_{\text{E}}=0$			50	nA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}}=4\text{V}$, $I_{\text{C}}=0$			50	nA
DC current gain	$h_{\text{FE}(1)}^*$	$V_{\text{CE}}=5\text{V}$, $I_{\text{C}}=1\text{mA}$	80			
	$h_{\text{FE}(2)}^*$	$V_{\text{CE}}=5\text{V}$, $I_{\text{C}}=10\text{mA}$	100		300	
	$h_{\text{FE}(3)}^*$	$V_{\text{CE}}=5\text{V}$, $I_{\text{C}}=50\text{mA}$	30			
Collector-emitter saturation voltage	$V_{\text{CE(sat)1}}^*$	$I_{\text{C}}=10\text{mA}$, $I_{\text{B}}=1\text{mA}$			0.15	V
	$V_{\text{CE(sat)2}}^*$	$I_{\text{C}}=50\text{mA}$, $I_{\text{B}}=5\text{mA}$			0.2	V
Base-emitter saturation voltage	$V_{\text{BE(sat)1}}^*$	$I_{\text{C}}=10\text{mA}$, $I_{\text{B}}=1\text{mA}$			1	V
	$V_{\text{BE(sat)2}}^*$	$I_{\text{C}}=50\text{mA}$, $I_{\text{B}}=5\text{mA}$			1	V
Transition frequency	f_{T}	$V_{\text{CE}}=10\text{V}$, $I_{\text{C}}=10\text{mA}$, $f=100\text{MHz}$	100		300	MHz
Collector output capacitance	C_{ob}	$V_{\text{CB}}=10\text{V}$, $I_{\text{E}}=0$, $f=1\text{MHz}$			6	pF

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