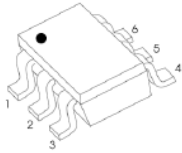
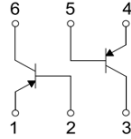


FEATURES

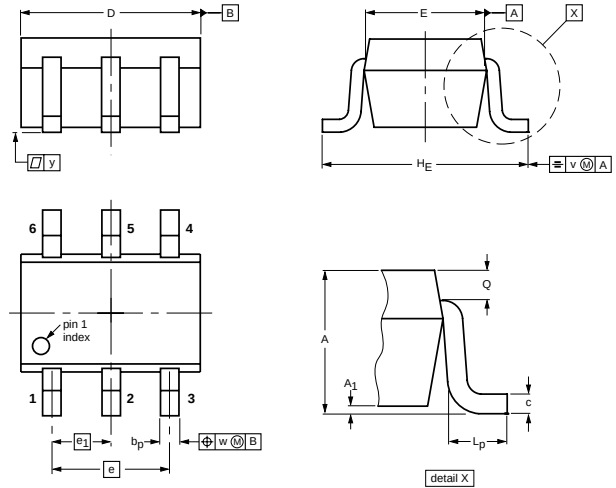
- Complementary to MMDT5551DW
- Small Surface Mount Package
- Ideal for Medium Power Amplification and Switching



SOT-363



SOT-363



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-160	V
V _{CEO}	Collector-Emitter Voltage	-150	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-600	mA
P _C	Collector Power Dissipation	300	mW
R _{ΘJA}	Thermal Resistance From Junction To Ambient	625	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

MMDT5401

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$, $I_E=0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$, $I_B=0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}$, $I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-120\text{V}$, $I_E=0$			-50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=-3\text{V}$, $I_C=0$			-50	nA
DC current gain	h_{FE}	$V_{CE}=-5\text{V}$, $I_C=-1\text{mA}$	50			
		$V_{CE}=-5\text{V}$, $I_C=-10\text{mA}$	60		300	
		$V_{CE}=-5\text{V}$, $I_C=-50\text{mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-50\text{mA}$, $I_B=-5\text{mA}$			-0.5	V
		$I_C=-10\text{mA}$, $I_B=-1\text{mA}$			-0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-50\text{mA}$, $I_B=-5\text{mA}$			-1	V
		$I_C=-10\text{mA}$, $I_B=-1\text{mA}$			-1	V
Transition frequency	f_T	$V_{CE}=-10\text{V}$, $I_C=-10\text{mA}$, $f=100\text{MHz}$	100			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $I_E=0$, $f=1\text{MHz}$			6	pF

RATING AND CHARACTERISTIC CURVES (MMDT5401)

