



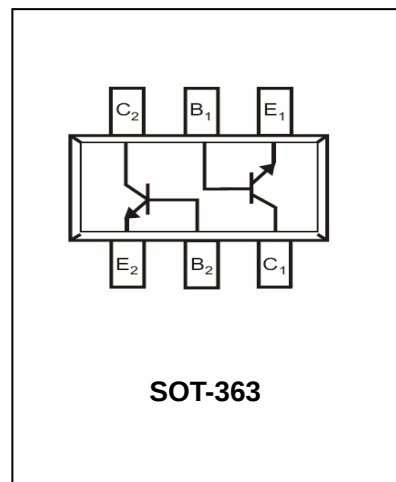
Dual NPN Small Signal Surface Mount Transistor **MMDT5551**

FEATURES

- Epitaxial planar die construction.
- Complementary PNP type available MMDT5401.
- Ultra-small surface mount package.



Lead-free



APPLICATIONS

- Dual NPN small signal surface mount transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMDT5551	K4N	SOT-363

MAXIMUM RATING @ Ta=25°C unless otherwise specified

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 -Continuous	200	mA
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	625	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	°C



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A$ $I_E=0$	180	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA$ $I_B=0$	160	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A$ $I_C=0$	6	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=120V$ $I_E=0$	-	50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V$ $I_C=0$	-	50	nA
DC current gain	h_{FE}	$V_{CE}=5V$ $I_C=1.0mA$	80	-	-
		$V_{CE}=5V$ $I_C=10mA$	80	250	
		$V_{CE}=5V$ $I_C=50mA$	30	-	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA$ $I_B=1mA$ $I_C=50mA$ $I_B=5mA$	-	0.15 0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=10mA$ $I_B=1mA$ $I_C=50mA$ $I_B=5mA$	- -	1 1	V
Transition frequency	f_T	$V_{CE}=10V$ $I_C=10mA$ $f=100MHz$	100	300	MHz
Output Capacitance	C_{obo}	$V_{CB}=10V$, $f=1.0MHz$, $I_E=0$	-	6	pF
Noise Figure	NF	$V_{CE}=5V$, $f=1.0kHz$, $I_C=200\mu A$ $R_g=1.0k\Omega$	-	8.0	dB

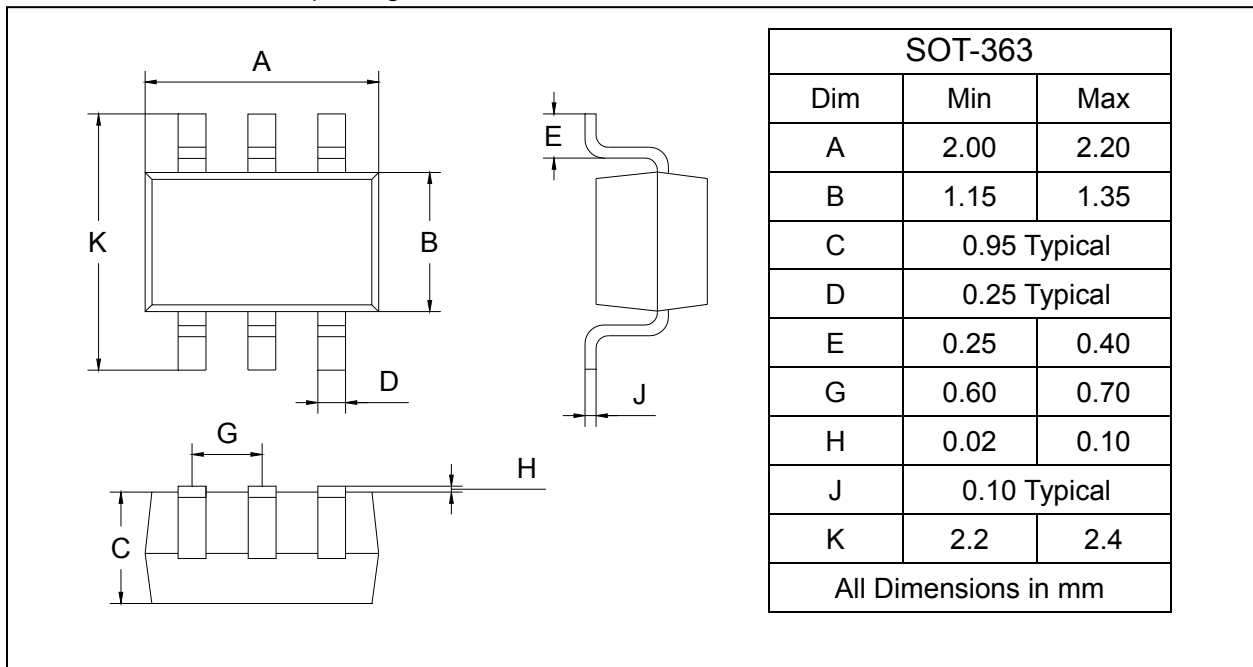


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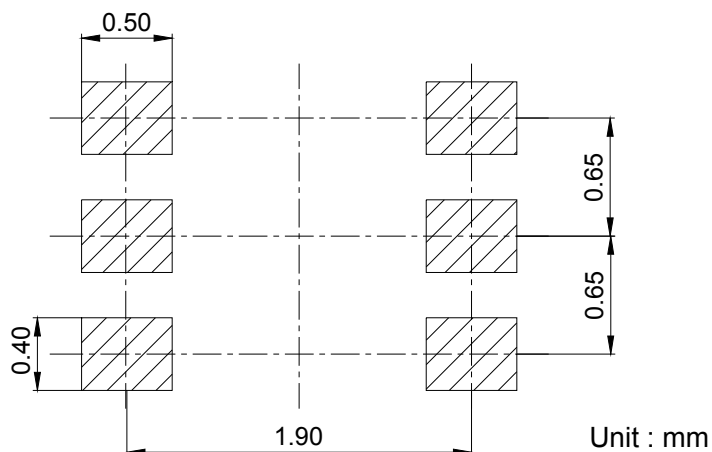
PACKAGE OUTLINE

Plastic surface mounted package

SOT-363



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
MMDT5551	SOT-363	3000/Tape&Reel