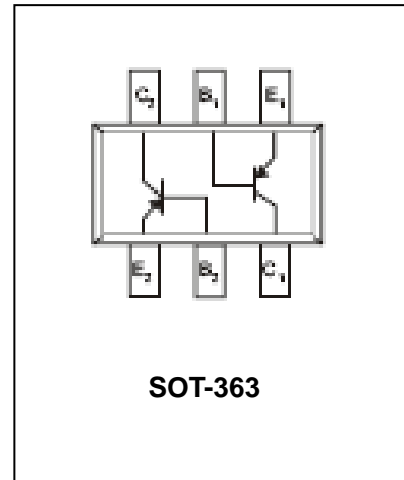


Dual NPN Small Signal Surface Mount Transistor **MMDT2907A**

FEATURES

- Epitaxial planar die construction.
- Complementary NPN type available MMDT2222A.
- Ultra-small surface mount package.



APPLICATIONS

- For Low power amplification and switching.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMDT2907A	K2F	SOT-363

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-60	V
V _{CEO}	Collector-Emitter Voltage	-60	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-600	mA
P _D	Power Dissipation	200	mW
R _{θJA}	Thermal Resistance, Junction to Ambient	625	°C/W
T _j , T _{stg}	Junction and Storage Temperature	-55to+150	°C

Dual NPN Small Signal Surface Mount Transistor **MMDT2907A**

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu A$ $I_E=0$	-60	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10mA$ $I_B=0$	-60	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu A$ $I_C=0$	-5	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=-50V$ $I_E=0$ $V_{CB}=-50V$ $I_E=0$ $T_A=125^\circ C$	-	-10	nA μA
Collector cut-off current	I_{CEX}	$V_{CE}=-30V$, $V_{EB(OFF)}=-0.5V$	-	-50	nA
Base cut-off current	I_{BL}	$V_{CE}=-30V$, $V_{EB(OFF)}=-0.5V$	-	-50	nA
DC current gain	h_{FE}	$V_{CE}=-10V$ $I_C=-100\mu A$	75	-	-
		$V_{CE}=-10V$ $I_C=-1.0mA$	100	-	
		$V_{CE}=-10V$ $I_C=-10mA$	100	-	
		$V_{CE}=-10V$ $I_C=-150mA$	100	300	
		$V_{CE}=-10V$ $I_C=-500mA$	50	-	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-150mA$ $I_B=-15mA$ $I_C=-500mA$ $I_B=-50mA$	-	-0.4 -1.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-150mA$ $I_B=-15mA$ $I_C=-500mA$ $I_B=-50mA$	-	-1.3 -2.6	V
Transition frequency	f_T	$V_{CE}=-20V$ $I_C=-50mA$ $f=100MHz$	200	-	MHz
Output Capacitance	C_{obo}	$V_{CB}=-10V$, $f=1.0MHz$, $I_E=0$	-	8	pF
Input Capacitance	C_{ibo}	$V_{EB}=-2.0V$, $f=1.0MHz$, $I_C=0$	-	30	pF
Delay time	t_d	$V_{CC}=-30V$, $I_C=-150mA$, $I_{B1}=-15mA$		10	ns
Rise time	t_r			40	ns
Storage time	t_s	$V_{CC}=-6V$, $I_C=-150mA$		225	ns
Fall time	t_f	$I_{B1}=-I_{B2}=-15mA$		60	ns

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

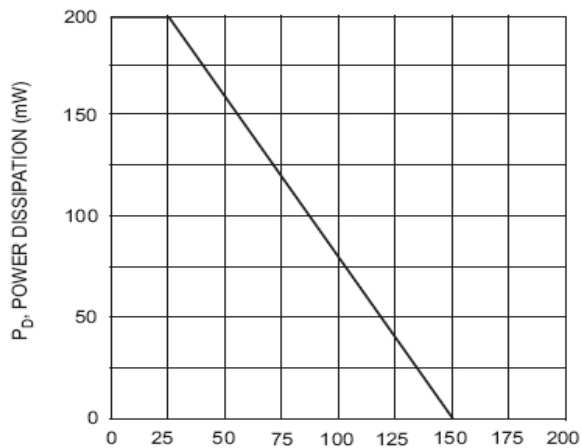


Fig. 1, Max Power Dissipation vs Ambient Temperature

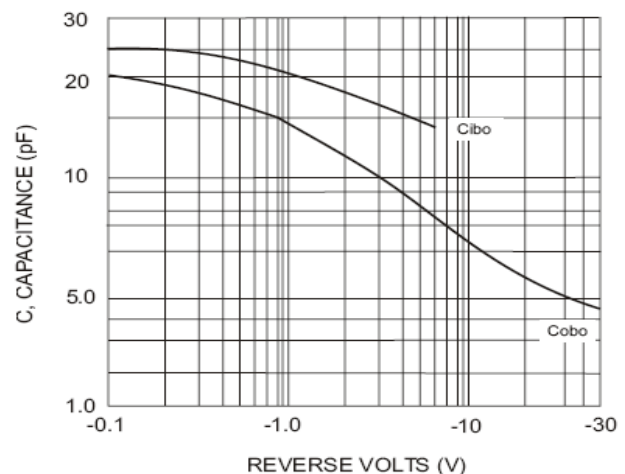


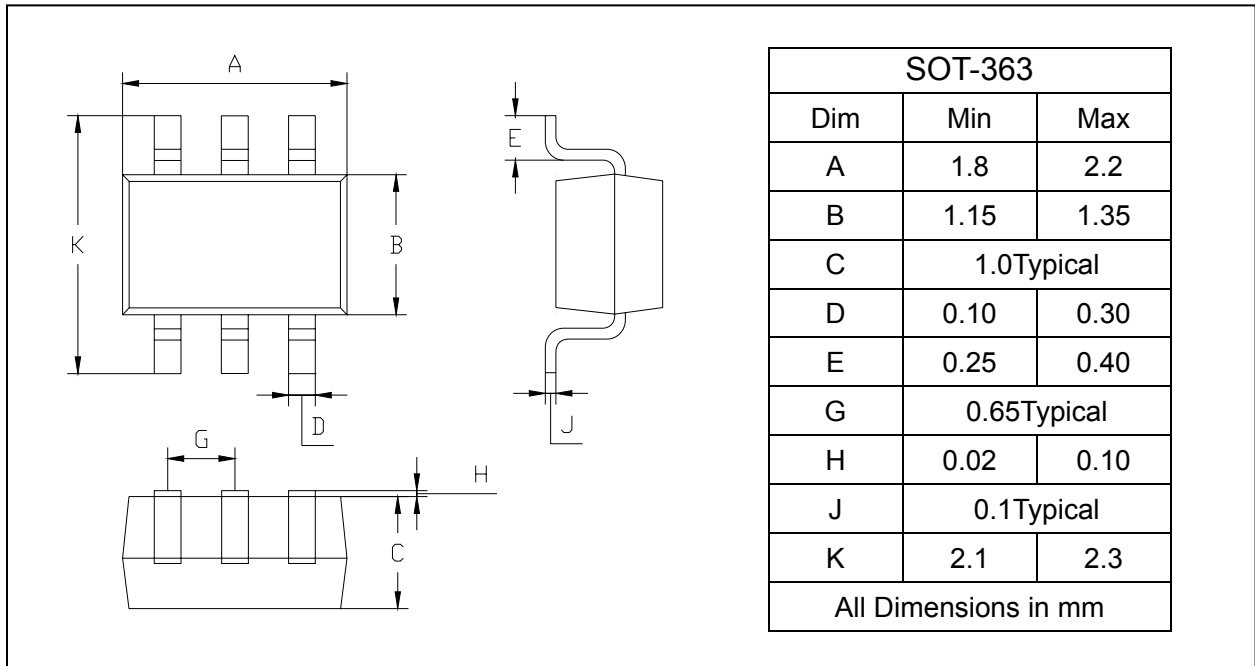
Fig. 2 Typical Capacitance

Dual NPN Small Signal Surface Mount Transistor **MMDT2907A**

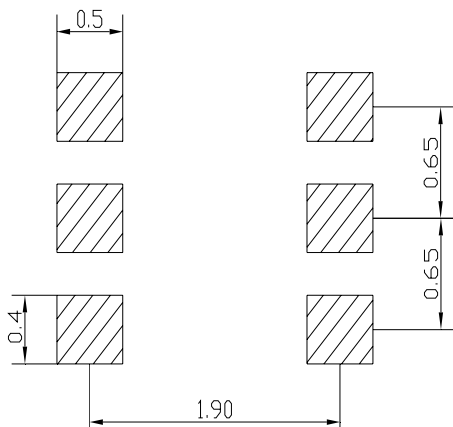
PACKAGE OUTLINE

Plastic surface mounted package

SOT-363



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMDT2907A	SOT-363	3000/Tape&Reel

www.s-manuals.com