



/ Revised record

A	2021.08.19	ALL	DIODES-MMDT4401		
B	2021-10-16	4			

/ Descriptions

SOT-363 NPN

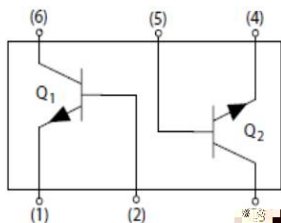
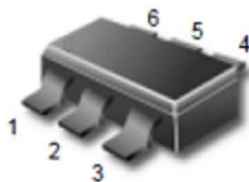
Double silicon NPN transistor in a SOT-363 Plastic Package.

/ Features

Low current, Low voltage. HF Product.

/ Applications

General purpose amplifier and switching.

/ Equivalent Circuit**/ Pinning**

PIN 1 4 Emitter PIN 2 5 Base PIN 3 6 Collector

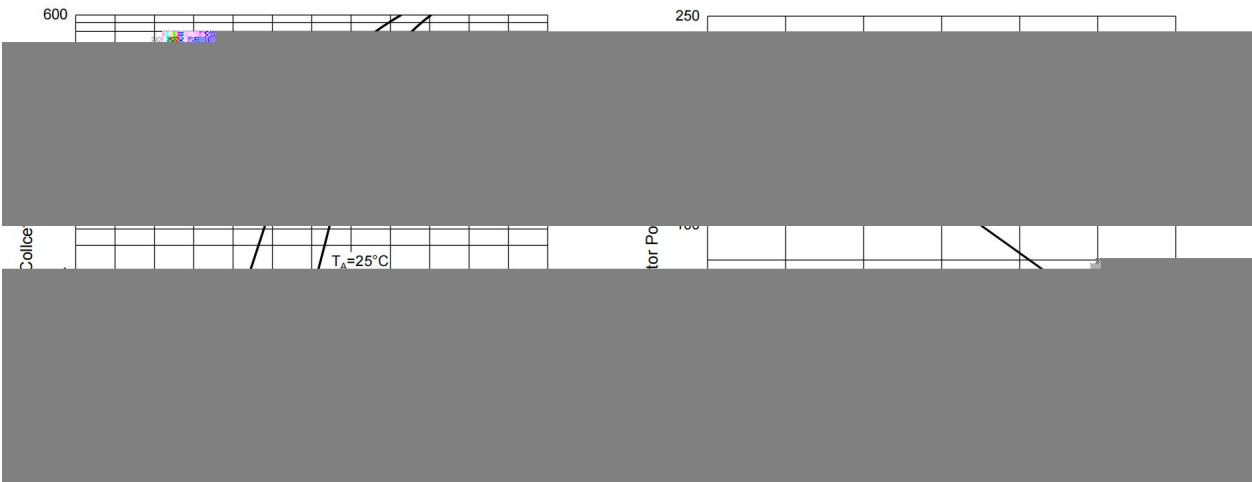
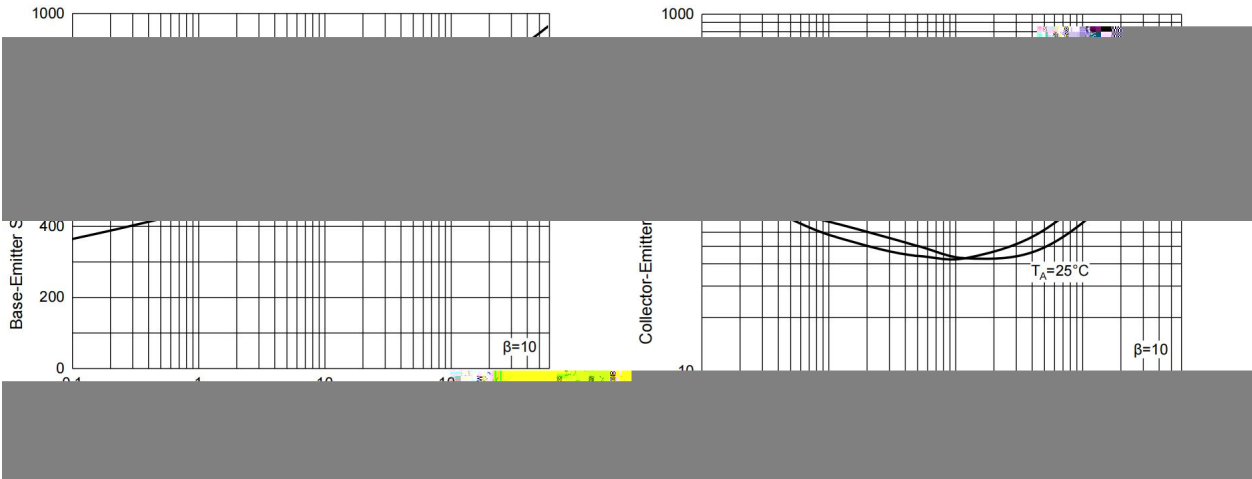
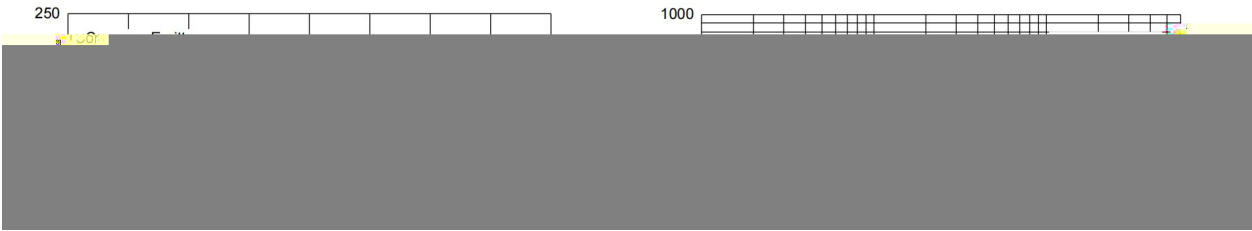
/ h_{FE} Classifications & Marking

See Marking Instructions.

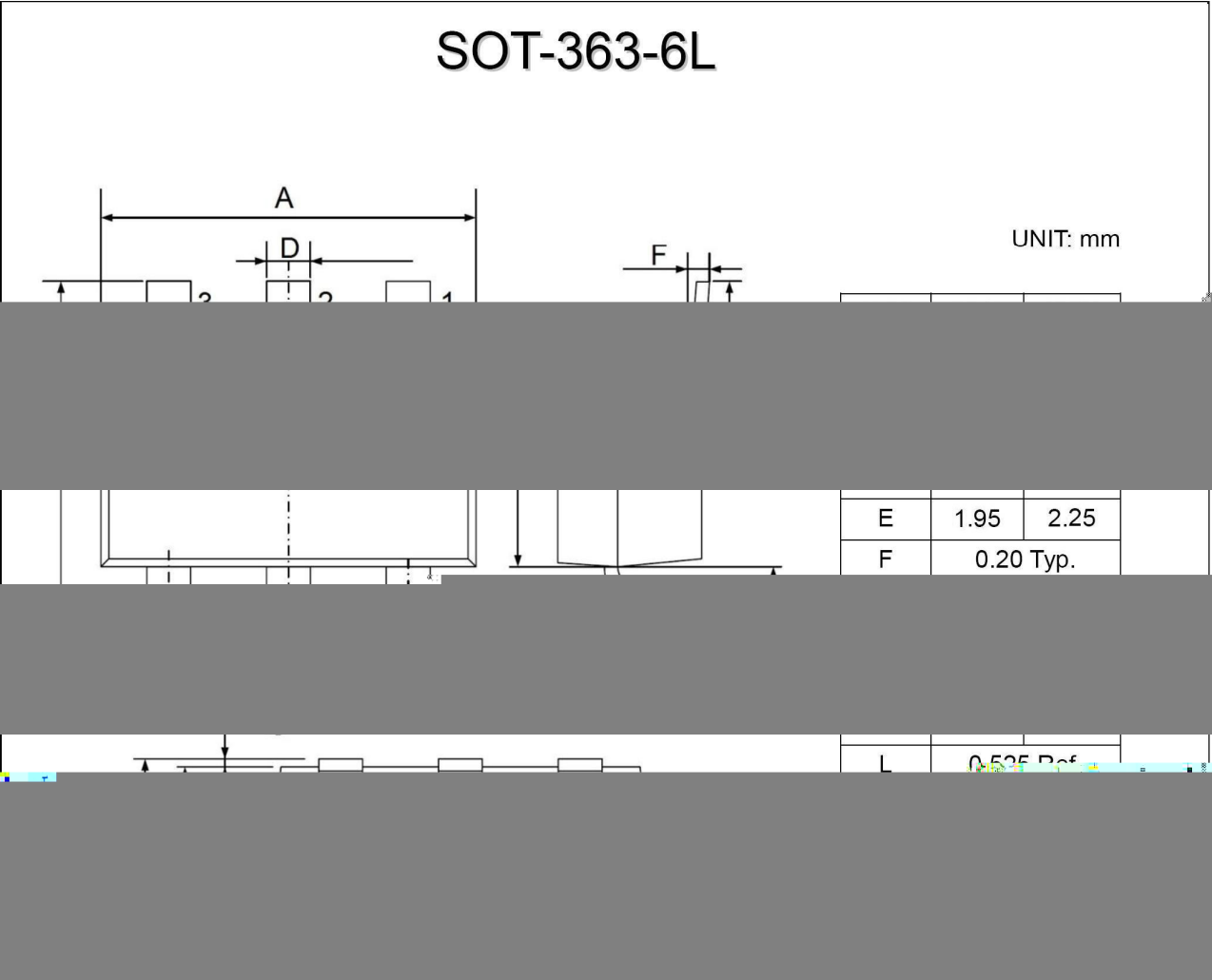
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	40	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	600	mA
Power Dissipation	P_D	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=100\mu A$ $I_E=0$	60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	40			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=100\mu A$ $I_C=0$	6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=50V$ $I_E=0$			0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=0.1mA$	20			
	$h_{FE(2)}$	$V_{CE}=1.0V$ $I_C=1mA$	40			
	$h_{FE(3)}$	$V_{CE}=1.0V$ $I_C=10mA$	80			
	$h_{FE(4)}$	$V_{CE}=1.0V$ $I_C=150mA$	100		300	
	$h_{FE(5)}$	$V_{CE}=2.0V$ $I_C=500mA$	40			
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=150mA$ $I_B=15mA$			0.4	V

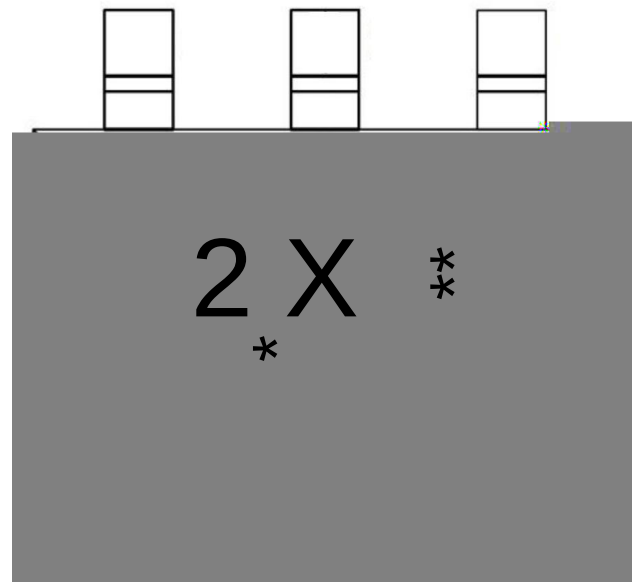
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



● “ 1 ”

2X

***:

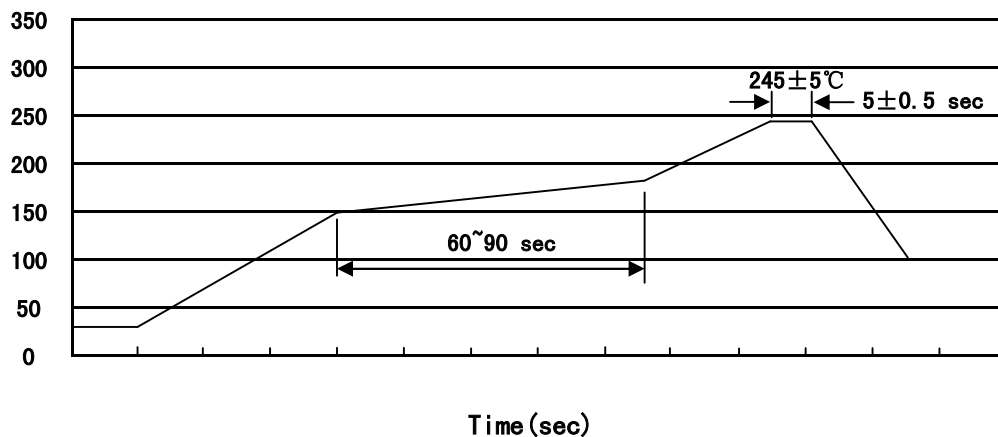
Note:

● “1” Pin

2X Product Type Code

***: Lot No. Code, code change with Lot No.

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|--------|--|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180°C, Time:60~90sec. |
| 2 | 245±5 | | 5±0.5sec; | | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | | 2 | 10°C/sec. | | 3. Cooling Speed: 2~10°C/sec. |

/ Resistance to Soldering Heat Test Conditions

260±5°C

10±1 sec.

Temp.:260±5°C

Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-363	3,000	10	30,000	6	180,000	7" x8	180×120×180	390×385×205

/ Notices