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# MMDT3946

Rev.E Oct.-2021



## / Descriptions

SOT-363 PNP+NPN Silicon PNP and NPN transistor in a SOT-363 Plastic Package.

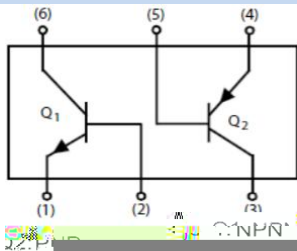
## / Features

$h_{FE}$   $V_{CE(sat)}$   
High DC Current Gain, Low Collector to Emitter Saturation 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	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=10\mu A$ $I_E=0$	60			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=1.0mA$ $I_B=0$	40			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=10\mu A$ $I_C=0$	6.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=30V$ $I_E=0$			0.05	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=3.0V$ $I_C=0$			0.05	$\mu A$
	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=10mA$	100		300	
	$h_{FE(2)}$	$V_{CE}=1.0V$ $I_C=100mA$	30			
	$h_{FE(3)}$	$V_{CE}=1.0V$ $I_C=50mA$	60			

h

v

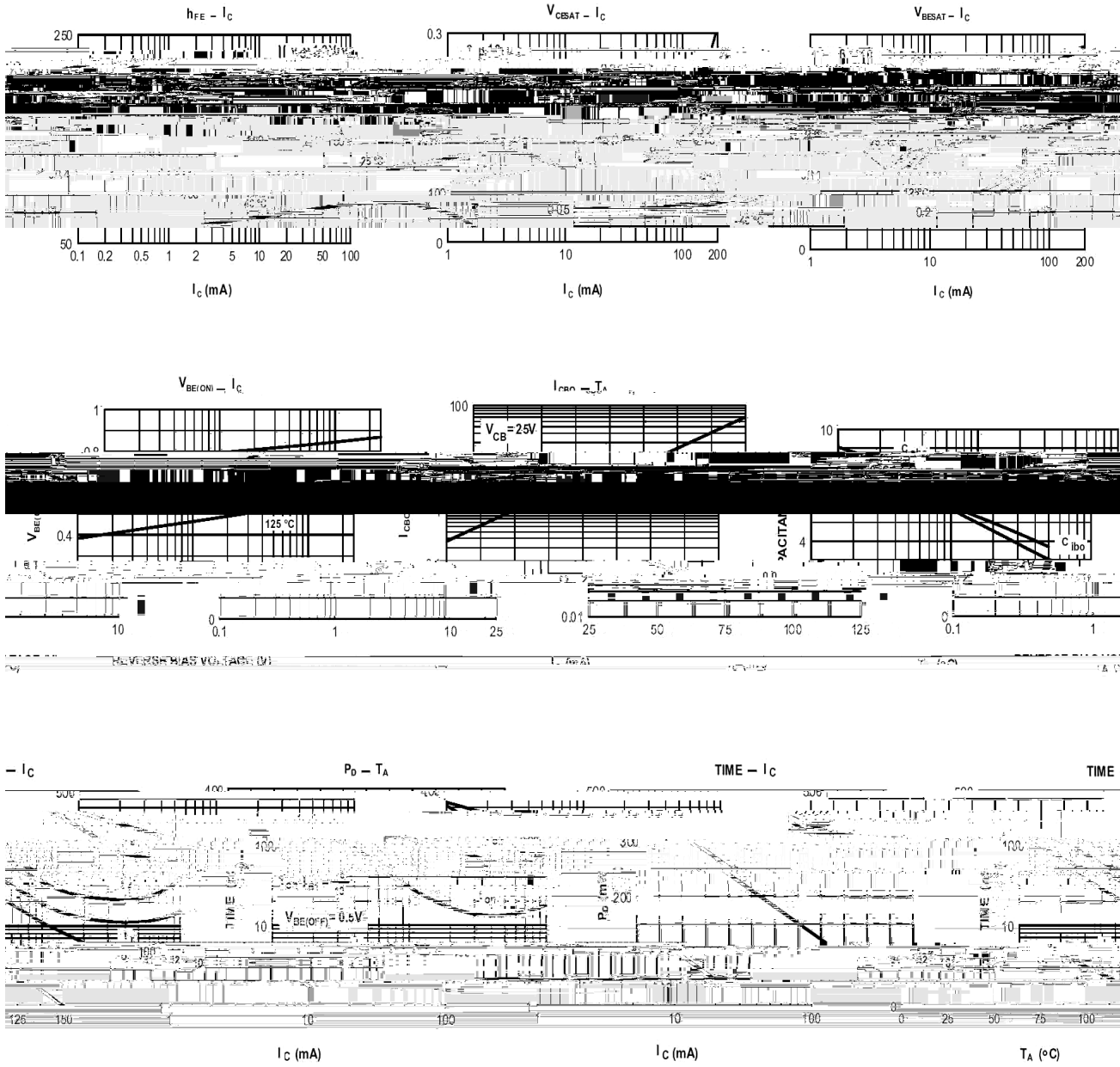
v

c

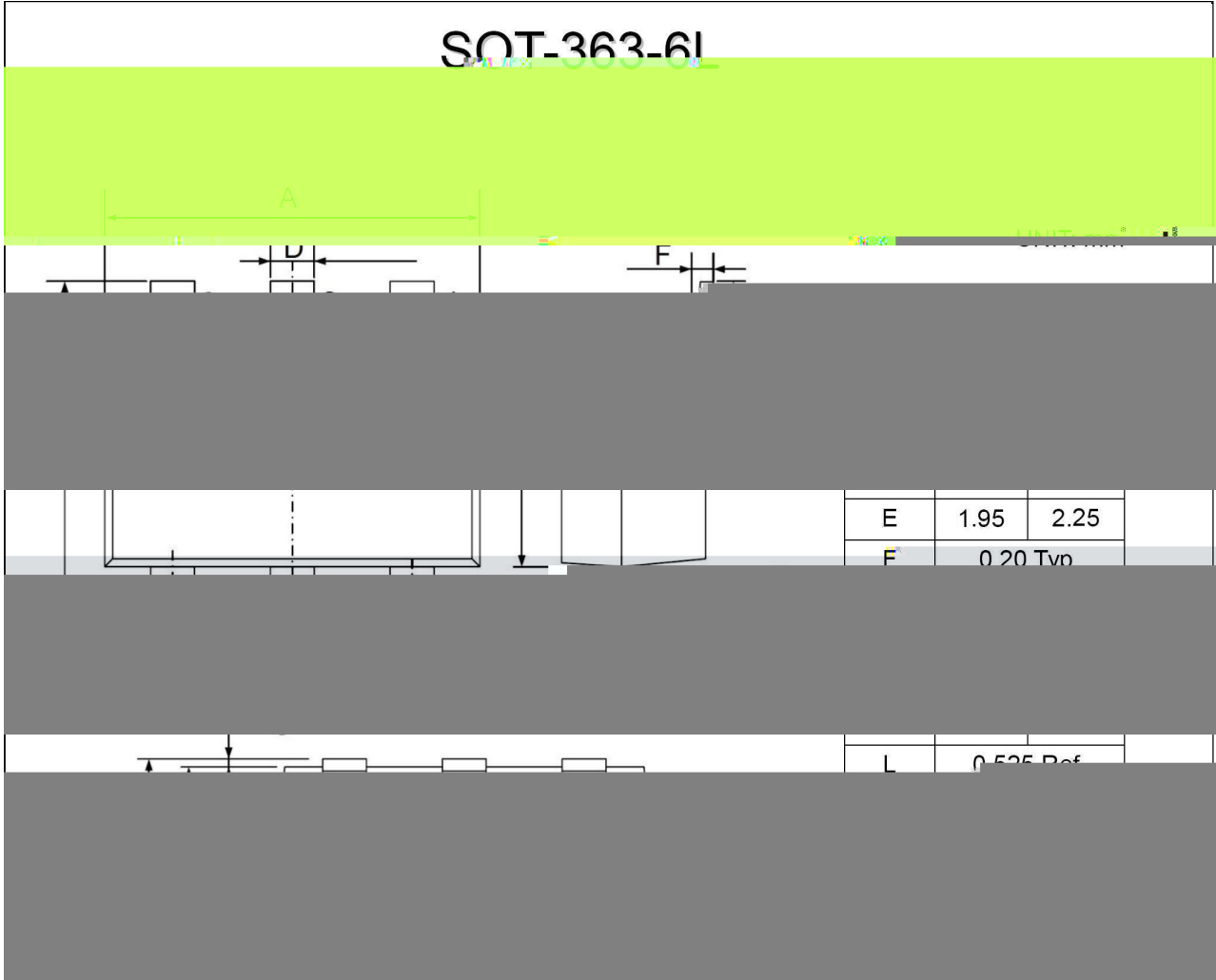




**/ Electrical Characteristic Curve (PNP)**



**/ Package Dimensions**





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


- |   |     |     |    |          |  |
|---|-----|-----|----|----------|--|
|   |     |     |    |          |  |
| 1 | 150 | 180 | 60 | 90sec;   | Note:<br>1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245 | 5   | 5  | 0.5sec;  | 2.Peak Temp.:245 5 , Duration:5 0.5sec.        |
| 3 |     |     | 2  | 10 /sec. | 3. Cooling Speed: 2~10 /sec.                   |

/ Resistance to Soldering Heat Test Conditions

260 5                      10 1 sec.                      Temp.:260±5                      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 <sup>3</sup> )
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