

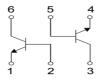
MMDT3356DW Plastic-Encapsulate Transistors

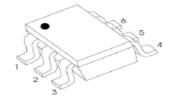
DUAL TRANSISTOR (NPN+NPN)

for microwave low noise amplifier at VHF, UHF and CATV band

The transistor is subdivided into three groups, S, according to its DC current gain.

MARKING: LW





SOT-363

Absolute Maximum Ratings (T_a = 25 °C)

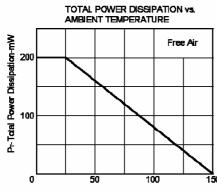
Parameter	Symbol	Value	Unit	
Collector Base Voltage	V _{CBO}	20	V	
Collector Emitter Voltage	V _{CEO}	12	V	
Emitter Base Voltage	V _{EBO}	3	V	
Collector Current	I _C	100	mA	
Power Dissipation	P _{tot}	200	mW	
Junction Temperature	T _j	150	°C	
Storage Temperature Range	Ts	- 65 to + 150	°C	

Characteristics (T_a = 25 °C)

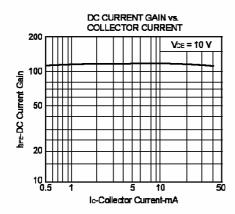
Parameter	Symbol	Min.	Тур.	Max.	Unit	
DC Current Gain at $V_{CE} = 10 \text{ V}$, $I_C = 20 \text{ mA}$ Current Gain Group	S	hFE	125	-	250	-
Collector Cutoff Current at V _{CB} = 10 V		I _{CBO}	-	-	1	μΑ
Emitter Cutoff Current at V _{EB} = 1 V		I _{EBO}	ı	ı	1	μΑ
Gain Bandwidth Product at $V_{CE} = 10 \text{ V}$, $I_C = 20 \text{ mA}$		f _T	ı	7	-	GHz
Feed-Back Capacitance at $V_{CB} = 10 \text{ V}$, $f = 1 \text{ MHz}$		C _{re} ¹⁾	-	0.55	1	pF
Noise Figure at $V_{CE} = 10 \text{ V}$, $I_C = 7 \text{ mA}$, $f = 1 \text{ GHz}$		NF	-	1.1	2	dB

¹⁾ The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.







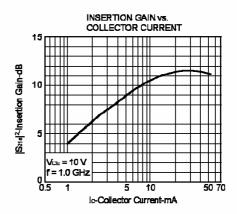


f-Gain Bandwidth Product-MHz 5.0 3.0 20 1.0 0.5

GAIN BANDWIDTH PRODUCT vs. COLLECTOR CURRENT 10 0.3 0.2 = 10 V | 0.1 0.5 1.0 5.0 10 Ic-Collector Current-mA

FEED-BACK CAPACITANCE vs. COLLECTOR TO BASE VOLTAGE f=1.0 MHz Cr-Feed-back Capacitance-pF 0.3 L 0 0.5

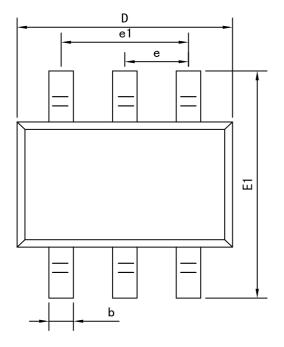
Vos-Collector to Base Voltage-V

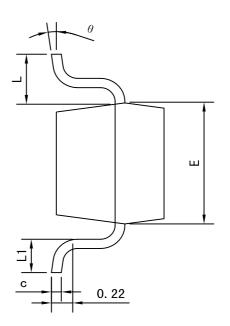


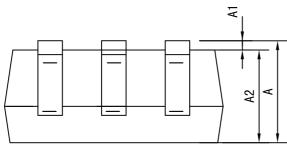
INSERTION GAIN, MAXIMUM GAIN VS. FREQUENCY Gmar-Maximum Gain-dB |Szre|²-Insertion Gain-dB 20 |S21e|² Vc= 10 V lc = 20 mA 0.1 0.4 0.6 0.8 1.0 2 0.2 f-Frequency-GHz



SOT-363 Package outline dimensions



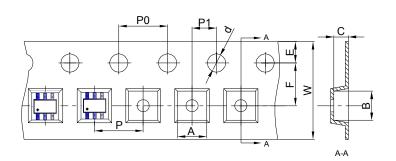




Symbol	Dimension in Millimeters					
Symbol	Min	Max				
А	0.900	1.100				
A1	0.000	0.100				
A2	0.900	1.000				
b	0.150	0.350				
С	0.080	0.150				
D	2.000	2.200				
E	1.150	1.350				
E1	2.150	2.450				
е	0.650 TYP					
e1	1.200	1.400				
L	0.525 REF					
L1	0.260	0.460				
θ	0°	8°				



SOT-363 Embossed Carrier Tape



Packaging Description:

SOT-363 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	Α	В	С	d	E	F	P0	Р	P1	W
SOT-363	2.25	2.55	1.20	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-363 Tape Leader and Trailer

