

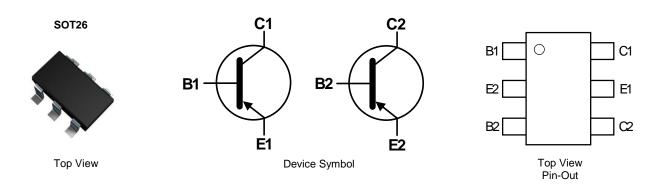
60V DUAL PNP SMALL SIGNAL TRANSISTOR IN SOT26

Features

- BV_{CEO} > -60V
- I_{CM} = -1A Peak Pulse Current
- General Purpose PNP Transistors Ideally Suited for Low Power Amplification and Switching Applications
- Dual Transistors in a Single SOT26 Package, Taking Half of the Footprint of Two Equivalent Transistors in SOT23
- Epitaxial Planar Die Construction
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)
- Qualified to AEC-Q101 Standards for High Reliability

Mechanical Data

- Case: SOT26
- Case Material: Molded Plastic, "Green" Molding Compound.
 UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 [®]3
- Weight: 0.015 grams (Approximate)



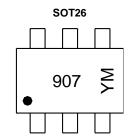
Ordering Information (Note 4)

Product	Compliance	Marking	Reel Size (inches)	Tape Width (mm)	Quantity per Reel
DMMT2907A-7	AEC-Q101	907	7	8	3,000

Notes:

- 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
- 2. See http://www.diodes.com/quality/lead_free.html for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 4. For packaging details, go to our website at http://www.diodes.com/products/packages.html.

Marking Information



907 = Product Type Marking Code YM = Date Code Marking Y or \overline{Y} = Year (ex: C = 2015) M or \overline{M} = Month (ex: 9 = September)

Date Code Key

- 410 00	,													
Year	20	15	2016		2017	2018	2019	2020	202	1 20	22 2	2023	2024	2025
Code	()	D		Е	F	G	Н		,	J	K	L	М
Мо	nth	Ja	ın l	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Co	ode	1		2	3	4	5	6	7	8	9	0	N	D



Absolute Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	-60	V
Collector-Emitter Voltage	V _{CEO}	-60	V
Emitter-Base Voltage	V _{EBO}	-5	V
Continuous Collector Current	Ic	-600	mA
Peak Pulsed Collector Current	I _{CM}	-1	Α

Thermal Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic		Symbol	Value	Unit	
Power Dissipation	(Notes 6 & 7)	D	1.28 10.3	W	
Linear Derating Factor	(Notes 5 & 7)	P _D	0.90 7.14	mW/°C	
Thermal Resistance, Junction to Ambient	(Notes 6 & 7)	$R_{ heta JA}$	97		
Thermal Resistance, Junction to Lead	(Notes 5 & 7) (Note 8)	ReJL	140 113	°C/W	
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C		

ESD Ratings (Note 9)

Characteristic	Symbol	Value	Unit	JEDEC Class
Electrostatic Discharge – Human Body Model	ESD HBM	4,000	V	3A
Electrostatic Discharge – Machine Model	ESD MM	400	V	С

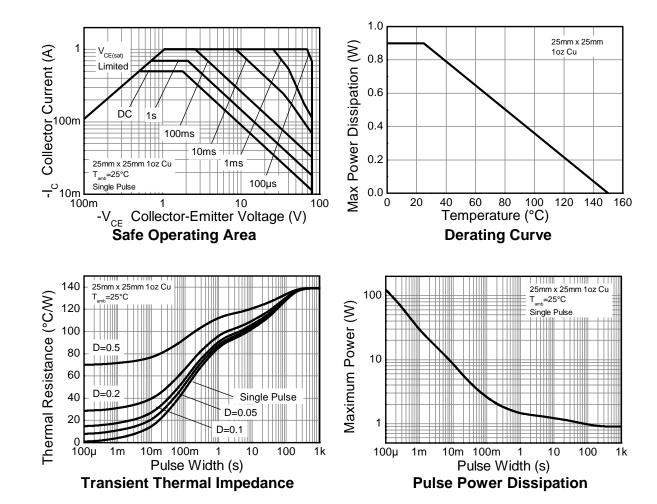
Notes:

- 5. For a device surface mounted on 25mm x 25mm x 1.6mm FR4 PCB with high coverage of single sided 1oz copper, in still air conditions; the device is measured when operating in a steady-state condition.
- 6. Same as Note 5, except the device is measured at $t \le 5$ seconds.
- 7. For a dual device with one active die.
- 8. Thermal resistance from junction to solder-point (at the end of the collector lead).

 9. Refer to JEDEC specification JESD22-A114 and JESD22-A115.



Thermal Characteristics and Derating Information





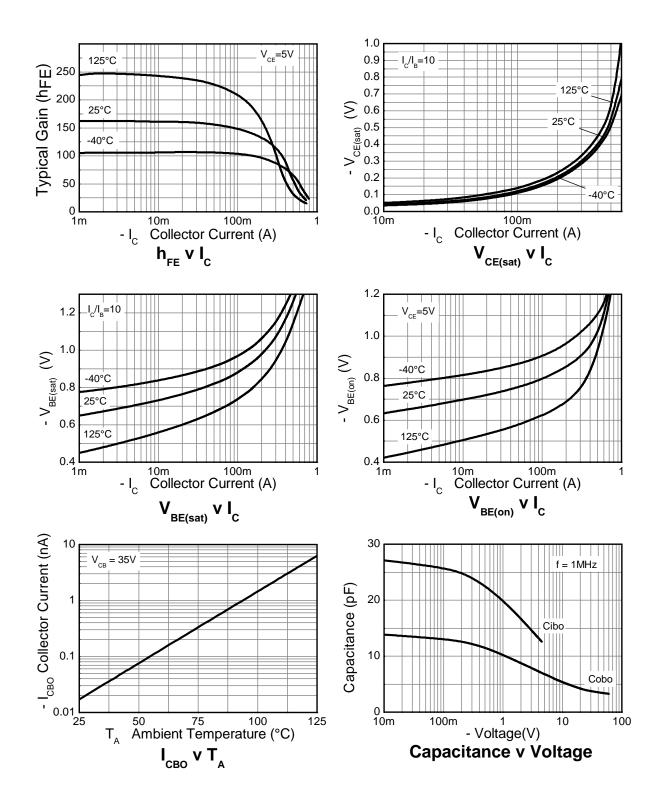
Electrical Characteristics (@T_A = +25°C unless otherwise specified.)

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
OFF CHARACTERISTICS						
Collector-Base Breakdown Voltage	BV _{CBO}	-60	_	_	V	$I_C = -10\mu A, I_E = 0$
Collector-Emitter Breakdown Voltage (Note 10)	BV _{CEO}	-60	_	_	V	$I_C = -10 \text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	BV _{EBO}	-5	_	_	V	$I_E = -10\mu A, I_C = 0$
Collector-Base Cut-Off Current			_	-10	nA	$V_{CB} = -50V, I_E = 0$
Collector-Base Gut-On Gunent	I _{CBO}	_	—	-10	μA	$V_{CB} = -50V$, $I_E = 0$, $T_A = +150$ °C
Collector-Emitter Cut-Off Current	I _{CEV}	_	_	±50	nA	$V_{CE} = -30V, V_{BE} = \pm 0.25V$
Base-Emitter Cut-Off Current	I _{BEV}	_	—	±50	nA	$V_{CE} = -30V$, $V_{BE} = \pm 0.25V$
ON CHARACTERISTICS (Note 10)						
		75	_			$I_C = -100 \mu A$, $V_{CE} = -10 V$
		100	_		_	$I_C = -1.0 \text{mA}, V_{CE} = -10 \text{V}$
DC Current Gain	h _{FE}	100	_			$I_C = -10 \text{mA}, V_{CE} = -10 \text{V}$
		100	—	300		$I_C = -150 \text{mA}, V_{CE} = -10 \text{V}$
		50	_	_		$I_C = -500 \text{mA}, V_{CE} = -10 \text{V}$
Collector-Emitter Saturation Voltage	V _{CE(sat)}	_	_	-0.4	V	$I_C = -150 \text{mA}, I_B = -15 \text{mA}$
Concetor Entitle Cataration Voltage		_	_	-1.6		$I_C = -500 \text{mA}, I_B = -50 \text{mA}$
Base-Emitter Saturation Voltage	V	_	_	-1.3	V	$I_C = -150 \text{mA}, I_B = -15 \text{mA}$
	V _{BE(sat)}	_	_	-2.6		$I_C = -500 \text{mA}, I_B = -50 \text{mA}$
SMALL SIGNAL CHARACTERISTICS						
Output Capacitance	C _{obo}	_	5.2		pF	$V_{CB} = -10V$, $f = 1.0MHz$, $I_E = 0mA$
Input Capacitance	C _{ibo}	_	16.3		pF	$V_{EB} = -2.0V$, $f = 1.0MHz$, $I_{C} = 0mA$
Current Gain-Bandwidth Product	f⊤	200	307	_	MHz	$V_{CE} = -2V$, $I_{C} = -10mA$, $f = 100MHz$
Turn-On Time	ton	_	—	21	ns	$V_{CC} = -30 \text{V }_{IC} = -150 \text{mA},$
Delay Time	t _d	_	_	5.5	ns	$V_{CC} = -30V I_C = -150 IIIA,$ $I_{B1} = -15 mA$
Rise Time	t _r		_	15.3	ns	IBJ = - IOIIIM
Turn-Off Time	t _{off}	_	_	200	ns	\/ 6\/
Storage Time	ts		_	160	ns	$V_{CC} = -6V$ $I_{C} = -150\text{mA}, I_{B1} = I_{B2} = -15\text{mA}$
Fall Time	t _f	_	_	40	ns	IC = -130HA, 181 = 182 = -13HA

Note: 10. Measured under pulsed conditions. Pulse width \leq 300 μ s. Duty cycle \leq 2%.



Typical Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

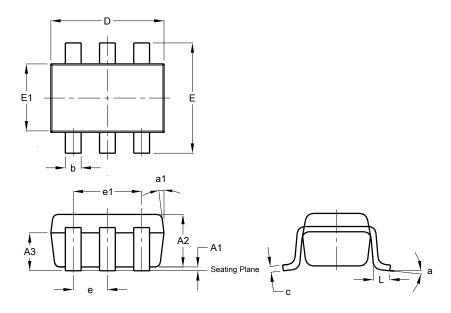




Package Outline Dimensions

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.

SOT26

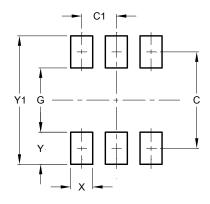


SOT26							
Dim	Min	Max	Тур				
A1	0.013	0.10	0.05				
A2	1.00	1.30	1.10				
A3	0.70	0.80	0.75				
b	0.35	0.50	0.38				
С	0.10	0.20	0.15				
D	2.90	3.10	3.00				
е	-	_	0.95				
e1	-	_	1.90				
Е	2.70	3.00	2.80				
E1	1.50	1.70	1.60				
L	0.35	0.55	0.40				
а	_	_	8°				
a1 –		_	7°				
All Dimensions in mm							

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.

SOT26



Dimensions	Value (in mm)
С	2.40
C1	0.95
G	1.60
Х	0.55
Υ	0.80
V1	3.20



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