RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

MMST2907A

SOT-323 BIPOLAR TRANSISTORS

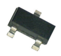
TRANSISTOR (PNP)

FEATURES

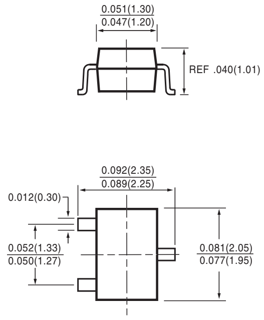
- Power dissipation
  Pcm: 0.2 W (Tamb=25°C)
- Collector current
  Icm: -0.6 A
- Collector-base voltage
  $V_{(BR)CBO}$: -60 V
- Operationg and storage junction temperature range
  T_J,T_{stg}: -55°Cto +150°C

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: MIL-STD-202E method 208C guaranteed
- Mounting position: Any
- Weight: 0.006 gram



SOT-323



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

MAXIMUM RATINGES (@ T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	VALUE	UNITS
Zener Current (see Table "Characteristics")	-	-	-
Max. Steady State Power Dissipation	P_D	200	mW
Max. Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Thermal Resistance Junction to Ambient	$R\ \theta_{JA}$	-	-	625	°C/W
Max. Instantaneous Forward Voltage at I_F= 10mA	V_F	-	-	-	Volts

2006-3

ELECTRICAL CHARACTERISTICS (@TA=25°C unless otherwise noted)

Chatacteristic		Symbol	Min	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage (I_C= -10mAdc, I_B= 0)		$V_{(BR)CEO}$	-60	-	Vdc
Collector-Base Breakdown Voltage (I_C= -10µAdc, I_E= 0)		$V_{(BR)CBO}$	-60	-	Vdc
Emitter-Base Breakdown Voltage (I_E= -10µAdc, I_C= 0)		$V_{(BR)EBO}$	-5	-	Vdc
Collector Cutoff Current (V_{CB}= -35Vdc,I_B= 0)		I_{CEO}	-	-0.05	µAdc
Collector Cutoff Current (V_{CB}= -50Vdc, I_E= 0)		I_{CBO}	-	-0.01	µAdc
Emitter Cutoff Current (V_{EB}= -3.0Vdc, I_C= 0)		I_{EBO}	-	-0.01	µAdc
ON CHARACTERISTICS					
DC Current Gain (I_C= -0.1mA, V_{CE}= -10Vdc)		hFE	75	-	-
(I_C= -1mAdc, V_{CE}= -10Vdc)			100	-	
(I_C= -10mAdc, V_{CE}= -10Vdc)			100	-	
(I_C= -150mAdc, V_{CE}= -10Vdc)			100	300	
(I_C= -500mAdc, V_{CE}= -10Vdc)			50	-	
Collector-Emitter Saturation Voltage (I_C= -500mAdc, I_B= -50mAdc)		$V_{CE(sat)}$	-	-0.6	Vdc
Base-Emitter Saturation Voltage (I_C= -500mAdc, I_B= -50mAdc)		$V_{BE(sat)}$	-	-1.2	Vdc
SMALL-SIGNAL CHARACTERISTICS					
Current-Gain-Bandwidth Product (I_C= -50mAdc, V_{CE}= -20Vdc, f= 100MHz)		f_T	200	-	MHz
Input Capacitance (V_{EB}=-2Vdc, f= 100MHz)		C_{ibo}	-	30	pF
Output Capacitance (I_E= 0, V_{CB}= -10Vdc, f= 1MHz)		C_{obo}	-	8	pF
SWITCHING CHARACTERISTICS					
Turn-On Time	(V_{CC}= -30Vdc ,$V_{BE(OFF)}$=-1.5Vdc,I_C= -150mAdc, I_{B1}= -15mAdc)	t_{on}	-	50	ns
Delay Time		t_d	-	10	
Rise Time		t_r	-	40	
Turn-Off Time	(V_{CC}= -30Vdc, I_C= -150mAdc, I_{B1}= I_{B2}= -15mAdc)	t_{off}	-	100	ns
Storage Time		t_s	-	80	
Fall Time		t_f	-	30	