

### MMDT2907A TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$P_{CM}$ : 0.15 W ( $T_{amb}=25^{\circ}C$ )

Collector current

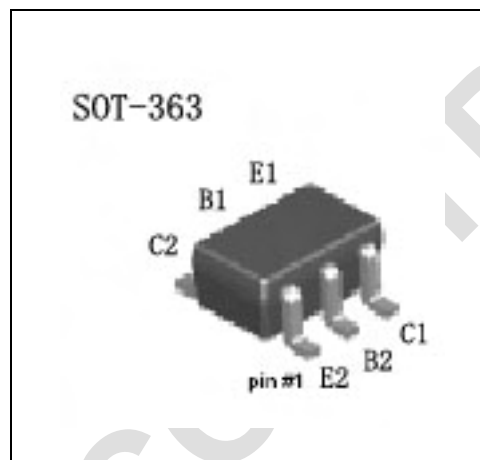
$I_{CM}$ : -0.6 A

Collector-base voltage

$V_{(BR)CBO}$ : -60 V

Operating and storage junction temperature range

$T_J, T_{stg}$ :  $-55^{\circ}C$  to  $+150^{\circ}C$



#### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}C$ unless otherwise specified)

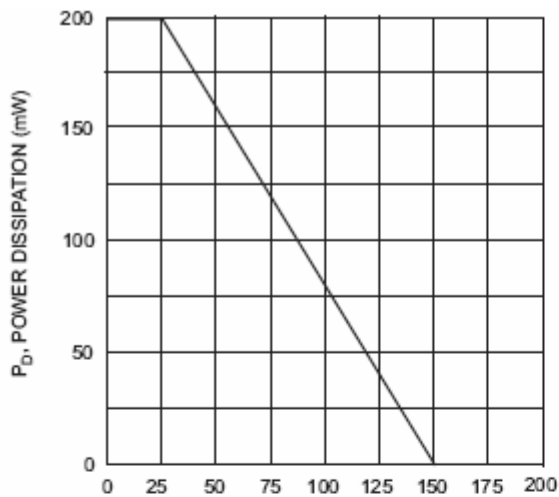
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-60		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5		V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50V, I_E = 0$		-0.01	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -3V, I_C = 0$		-0.01	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE} = -10V, I_C = -0.1mA$	75		
	$h_{FE(2)}$	$V_{CE} = -10V, I_C = -1mA$	100		
	$h_{FE(3)}$	$V_{CE} = -10V, I_C = -10mA$	100		
	$h_{FE(4)}$	$V_{CE} = -10V, I_C = -150mA$	100	300	
	$h_{FE(5)}$	$V_{CE} = -10V, I_C = -500mA$	50		
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -150mA, I_B = -15mA$		-0.4	V
	$V_{CE(sat)2}$	$I_C = -500mA, I_B = -50mA$		-1.6	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = -150mA, I_B = -15mA$		-1.3	V
	$V_{BE(sat)2}$	$I_C = -500mA, I_B = -50mA$		-2.6	V
Transition frequency	$f_T$	$V_{CE} = -20V, I_C = -50mA$ $f = 100MHz$	200		MHz
Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0$ $f = 1MHz$		8	pF
Input Capacitance	$C_{ib}$	$V_{EB} = -2V, I_C = 0$ $f = 1MHz$		30	pF
Delay time	$t_d$	$V_{CC} = -30V, I_C = -150mA,$ $I_{B1} = -15mA$		10	nS
Rise time	$t_r$			40	nS
Storage time	$t_s$	$V_{CC} = -6V, I_C = -150mA$ $I_{B1} = I_{B2} = -15mA$		225	nS
Fall time	$t_f$			60	nS

Marking

K2F

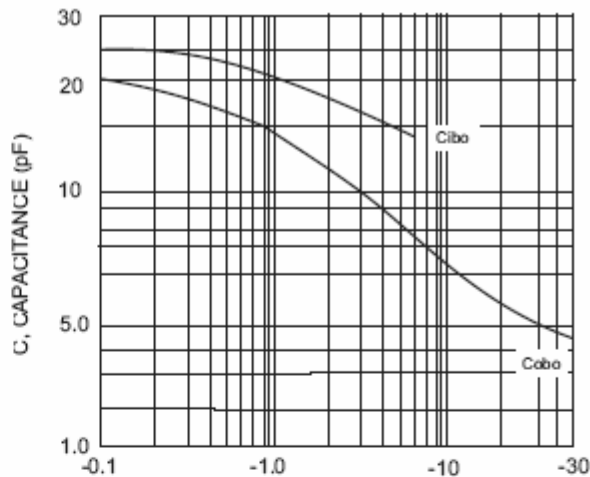
### Typical Characteristics

### MMDT2907A



T<sub>A</sub>, AMBIENT TEMPERATURE (°C)

Fig. 1, Max Power Dissipation vs Ambient Temperature



REVERSE VOLTS (V)

Fig. 2 Typical Capacitance

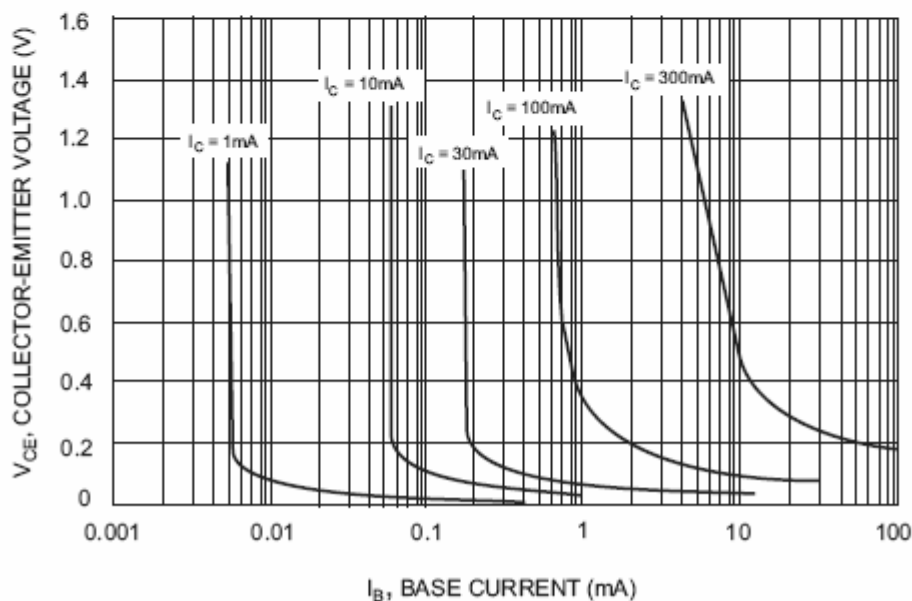


Fig. 3 Typical Collector Saturation Region