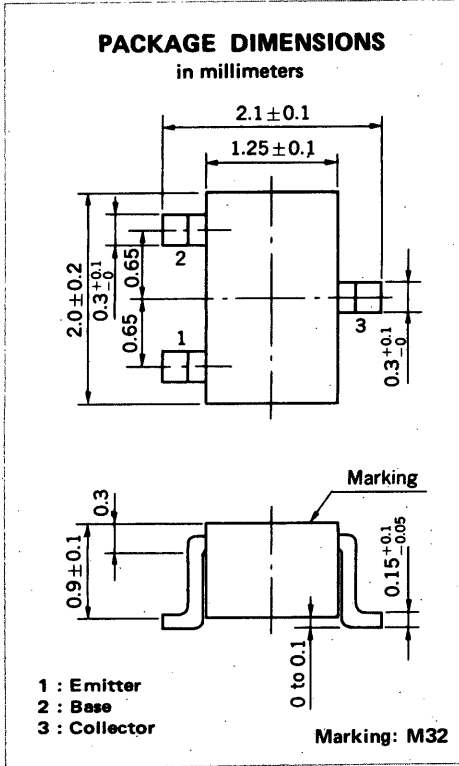
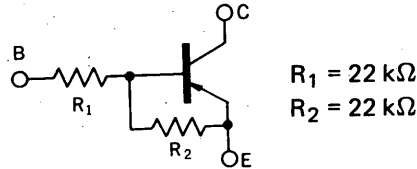


MEDIUM SPEED SWITCHING  
RESISTOR BUILT-IN TYPE PNP TRANSISTOR



**FEATURES**

- Resistors Built-in TYPE



- Complementary to GA1F4M

**ABSOLUTE MAXIMUM RATINGS**

Maximum Voltages and Currents ( $T_a = 25^\circ\text{C}$ )

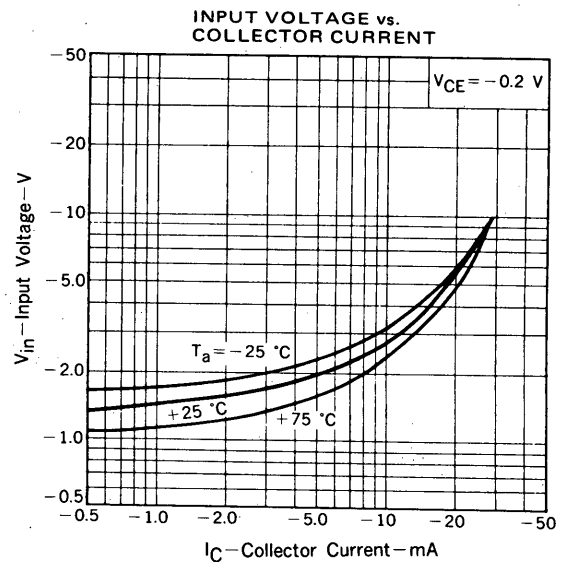
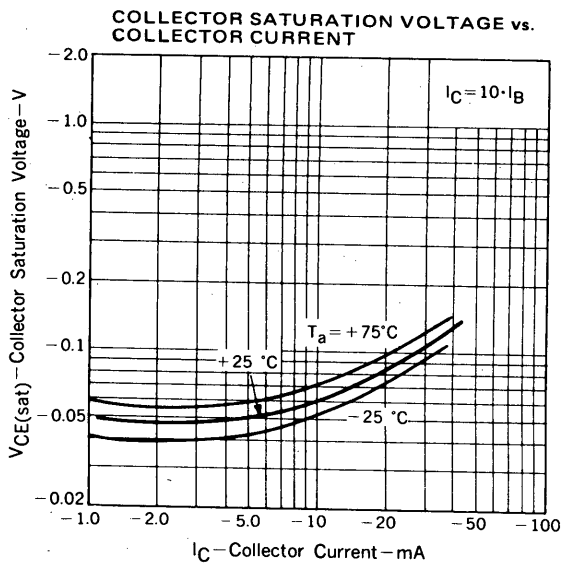
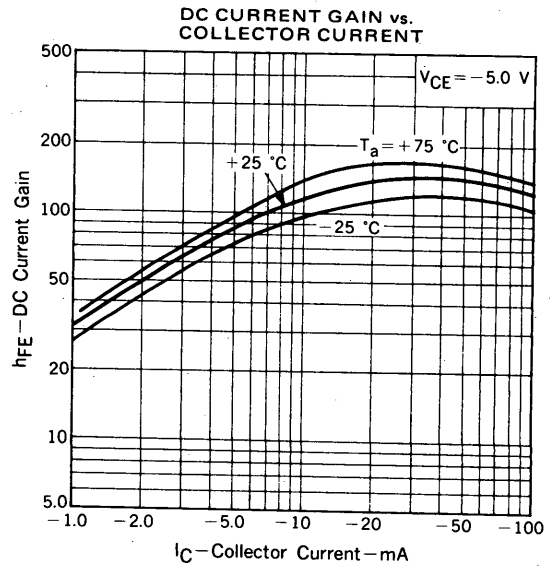
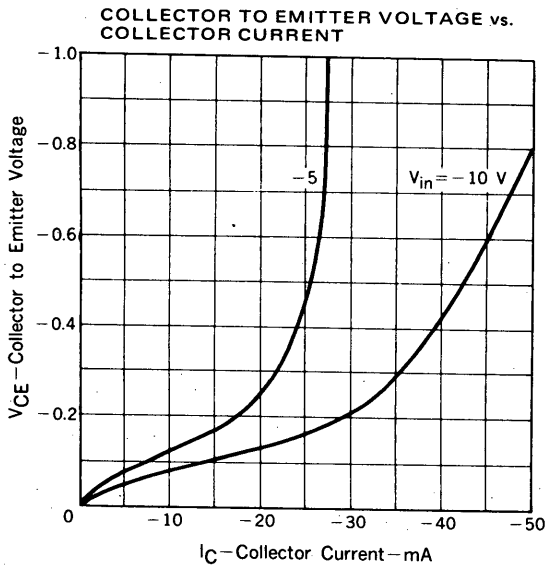
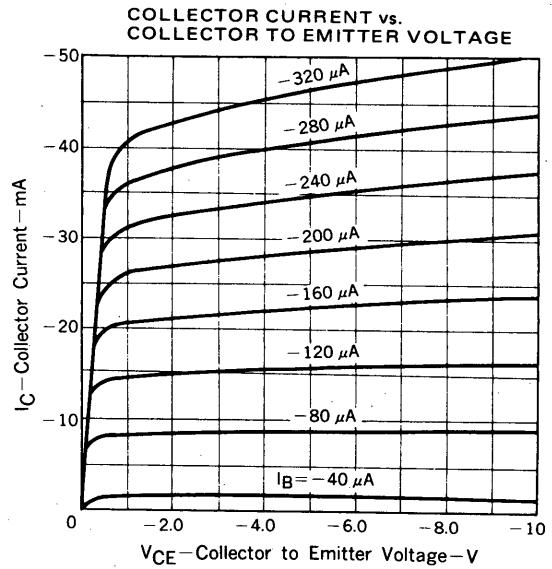
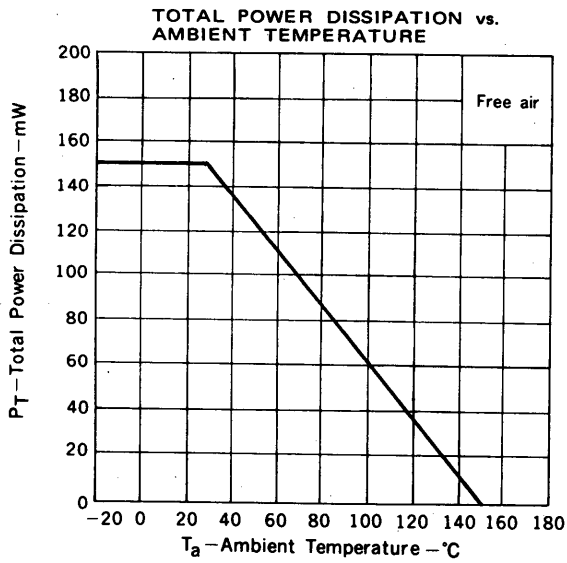
Collector to Base Voltage	$V_{CB0}$	-60	V
Collector to Emitter Voltage	$V_{CE0}$	-50	V
Emitter to Base Voltage	$V_{EB0}$	-10	V
Collector Current (DC)	$I_{C(DC)}$	-100	mA
Collector Current (Pulse)	$I_{C(Pulse)}$	-200	mA
Maximum Power Dissipation			
Total Power Dissipation			
at $25^\circ\text{C}$ Ambient Temperature	$P_T$	150	mW
Maximum Temperatures			
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

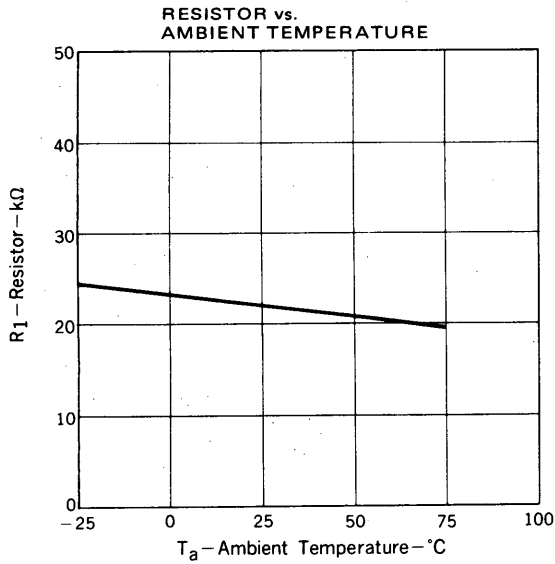
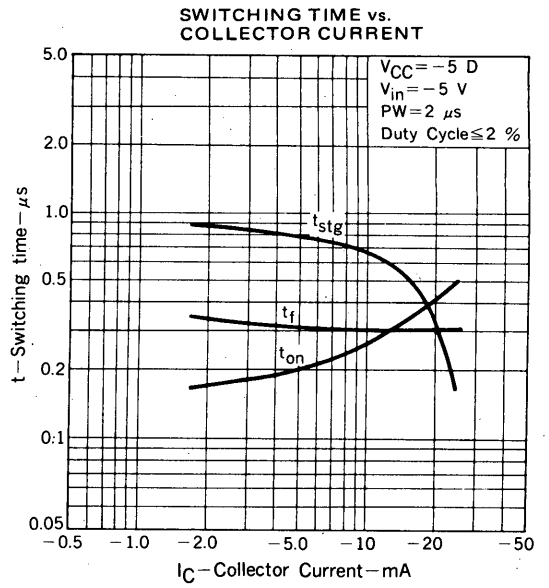
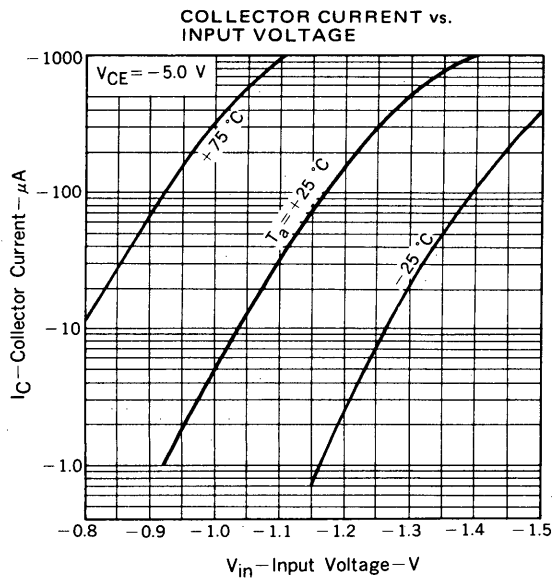
**ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )**

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	$I_{CB0}$			-100	nA	$V_{CB} = -50 \text{ V}, I_E = 0$
DC Current Gain	$h_{FE1}^*$	60	85	195		$V_{CE} = -5.0 \text{ V}, I_C = -5.0 \text{ mA}$
DC Current Gain	$h_{FE2}^*$	90	145			$V_{CE} = -5.0 \text{ V}, I_C = -50 \text{ mA}$
Collector Saturation Voltage	$V_{CE(sat)}^*$		-0.05	-0.2	V	$I_C = -5.0 \text{ mA}, I_B = -0.25 \text{ mA}$
Low-Level Input Voltage	$V_{IL}^*$		-1.17	-0.8	V	$V_{CE} = -5.0 \text{ V}, I_C = -100 \mu\text{A}$
High-Level Input Voltage	$V_{IH}^*$	-4.0	-2.0		V	$V_{CE} = -0.2 \text{ V}, I_C = -5.0 \text{ mA}$
Input Resistor	$R_1$	15.4	22.0	28.6	$\text{k}\Omega$	
Resistor Ratio	$R_1/R_2$	0.9	1.0	1.1		
Turn-on Time	$t_{on}$		0.23	0.5	$\mu\text{s}$	$V_{CC} = -5 \text{ V}, V_{in} = -5 \text{ V}$
Storage Time	$t_{stg}$		0.8	3.0	$\mu\text{s}$	$R_L = 1 \text{ k}\Omega$
Turn-off Time	$t_{off}$		1.1	3.5	$\mu\text{s}$	$PW = 2 \mu\text{s}, \text{Duty Cycle} \leq 2\%$

\* Pulsed:  $PW \leq 350 \mu\text{s}, \text{Duty Cycle} \leq 2\%$

TYPICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )





[MEMO]

No part of this document may be copied or reproduced in any form or by any means without the prior written consent of NEC Corporation. NEC Corporation assumes no responsibility for any errors which may appear in this document.

NEC Corporation does not assume any liability for infringement of patents, copyrights or other intellectual property rights of third parties by or arising from use of a device described herein or any other liability arising from use of such device. No license, either express, implied or otherwise, is granted under any patents, copyrights or other intellectual property rights of NEC Corporation or of others.