

isc Silicon NPN Power Transistor

2SC3422

DESCRIPTION

·Collector-Emitter Breakdown Voltage

: $V_{(BR)CEO} = 40V(\text{Min})$

·Good Linearity of h_{FE}

·Complement to Type 2SA1359

APPLICATIONS

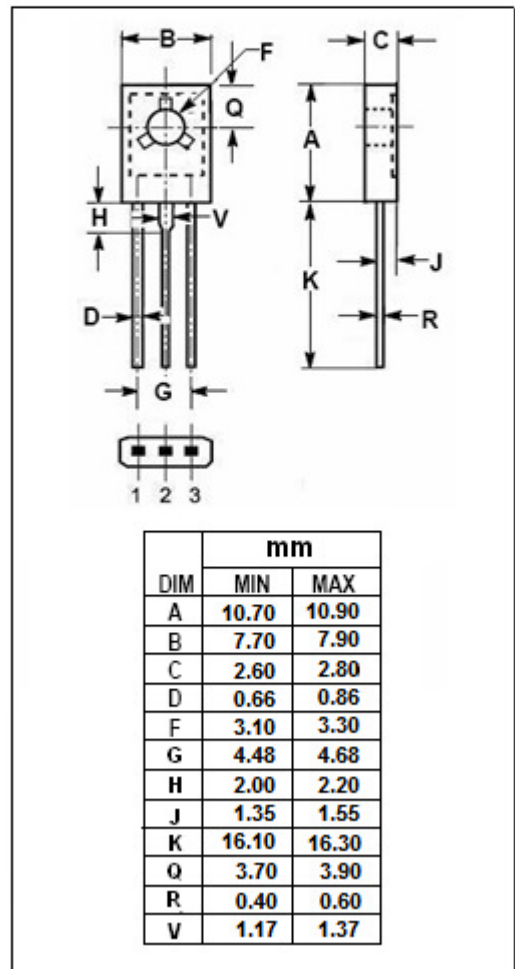
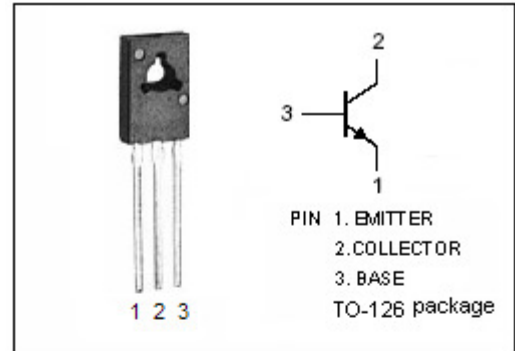
·Audio frequency power amplifier

·Low speed switching

·Suitable for output stage of 5 watts car radio and car stereo

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	3	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	10	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	1.5	



T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

isc Silicon NPN Power Transistor**2SC3422****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; I_B=0$	40			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.2\text{A}$			0.8	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=0.5\text{A}; V_{CE}=2\text{V}$			1.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=40\text{V}; I_E=0$			0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			0.1	μA
h_{FE-1}	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=2\text{V}$	80		240	
h_{FE-2}	DC Current Gain	$I_C=2.5\text{A}; V_{CE}=2\text{V}$	25			
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=2\text{V}$		100		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}, f_{test}=1\text{MHz}$		35		pF

◆ **h_{FE-1} Classifications**

O	Y
80-160	120-240