GSD1624 NPN EPITAXIAL PLANAR SILICON TRANSISTOR

HIGH CURRENT SWITCHING APPLICATION

Description

The GSD1624 applies to voltage regulators, relay drivers, lamp drivers, and electrical equipment .

FEATURES

*Adoption of FBET, MBIT processes
*Low collector-to-emitter saturation voltage
*Fast switching speed
*Large current capacity and wide ASO

Package Dimension

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.4	4.6	G	3.00 REF.	
B	4.05	4.25	H	1.50 REF.	
C	1.50	1.70	I	0.40	0.52
D	1.30	1.50	J	1.40	1.60
E	2.40	2.60	K	0.35	0.41
F	0.89	1.20	L	5° TYP.	
			M	0.70 REF.	

Absolute Maximum Ratings (Ta=25℃,unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	3	A
Collector Current (PULSE)(note1)	I_C	6	A
Total Power Dissipation	P_D	0.5	W
Junction Temperature	Tj	+150	℃
Storage Temperature	Tstg	-55 ~ +150	℃

Note 1:Single pulse,PW=10ms

ELECTRICAL Characteristics (Ta=25℃,unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$V_{(BR)CBO}$	60	-	-	V	IC=10uA ,IE=0
$V_{(BR)CEO}$	50	-	-	V	IC=1mA,RBE=∞
$V_{(BR)EBO}$	6	-	-	V	IE=10uA,Ic=0
ICBO	-	-	1	uA	VCB=40V
IEBO	-	-	1	uA	VEB=4V
VCE(sat)	-	0.19	0.5	V	IC=2A, IB=100mA
VBE(sat)	-	0.94	1.2	V	IC=2A, IB=100mA
hFE	100	-	560	-	VCE=2V, IC=0.1A
fT	-	150	-	MHz	VCE=10V, Ic=50mA
Cob	-	25	-	pF	VCB=10V, f=1MHz
tstg	-	650	-	ns	See test circuit
tf	-	35	-	ns	See test circuit

CLASSIFICATION OF Hfe

RANK	R	S	T	U
RANGE	100-200	140-280	200-400	280-560

TEST CIRCUIT(Unit: resistance:Ω,capacitane:F))

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